KIC 005179328

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_\star$ ($R_\odot$)	$T_\star$ (K)	R_p ($R_\oplus$)	S_p ($S_\oplus$)
005179328-01	OBS	No	0.670370	131.764741	8.2	4.033	8.9	6.8	1.82	6762	0.60	21602.52
005179328-02	OBS	No	108.777871	185.898559	134.5	11.798	8.4	7.9	1.82	6762	2.36	24.41
005179328-04	OBS	No	50.596736	179.377582	7.5	0.919	9.0	0.3	1.82	6762	0.58	67.73
005179328-05	OBS	No	321.707316	141.046541	229.4	5.303	8.6	8.1	1.82	6762	3.00	5.75
005179328-06	OBS	No	102.672857	201.159806	177.8	2.224	8.2	8.7	1.82	6762	2.73	26.36
005179328-07	OBS	No	44.423528	165.932506	153.8	1.359	9.2	8.0	1.82	6762	2.58	80.56
005179328-08	OBS	No	31.414157	133.679706	116.3	2.102	8.4	9.1	1.82	6762	2.27	127.87
005179328-09	OBS	No	77.609623	148.121983	124.0	4.261	8.7	7.2	1.82	6762	2.30	38.29
005179328-10	OBS	No	125.588996	139.259222	156.4	9.832	8.1	8.6	1.82	6762	2.43	20.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005179328-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
005179328-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_SATURATED
005179328-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_SATURATED
005179328-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

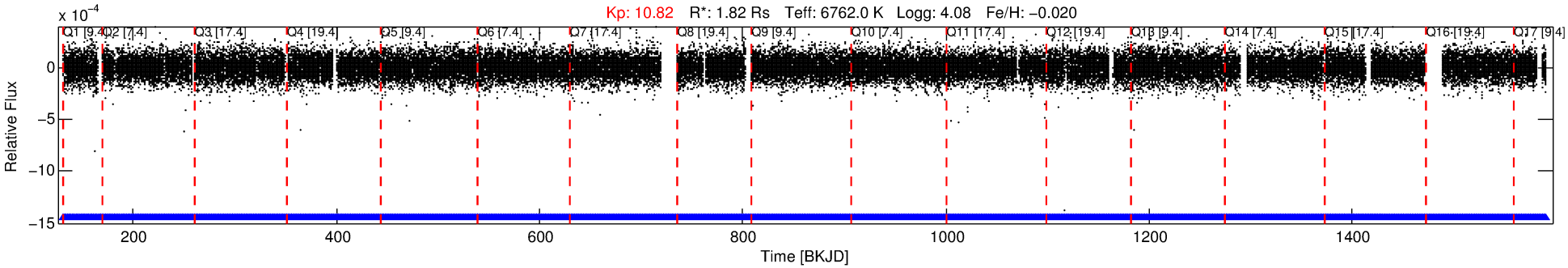
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

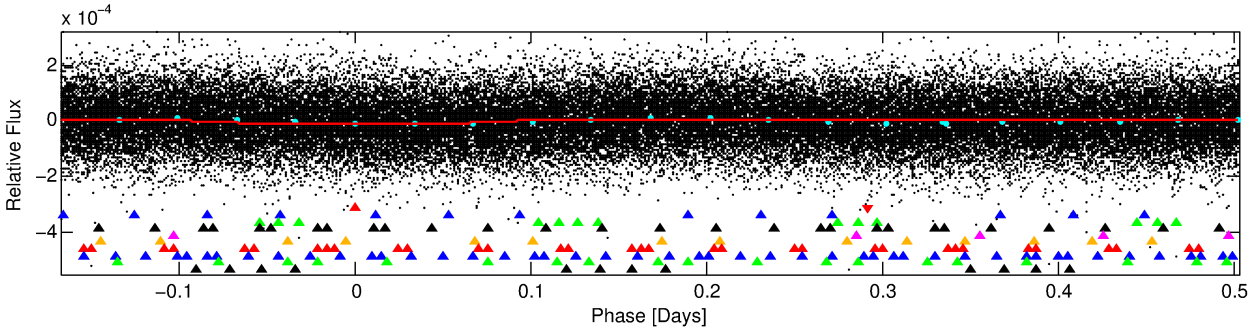
Ephemeris Match Information For 005179328-01

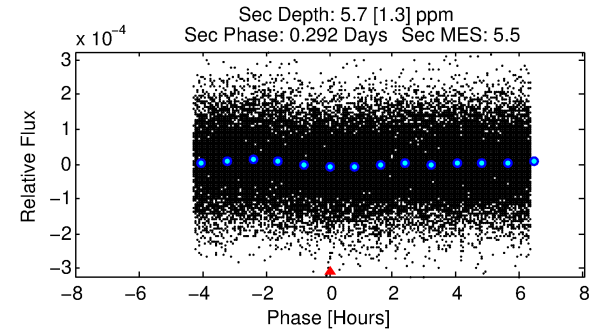
No Significant Match Found

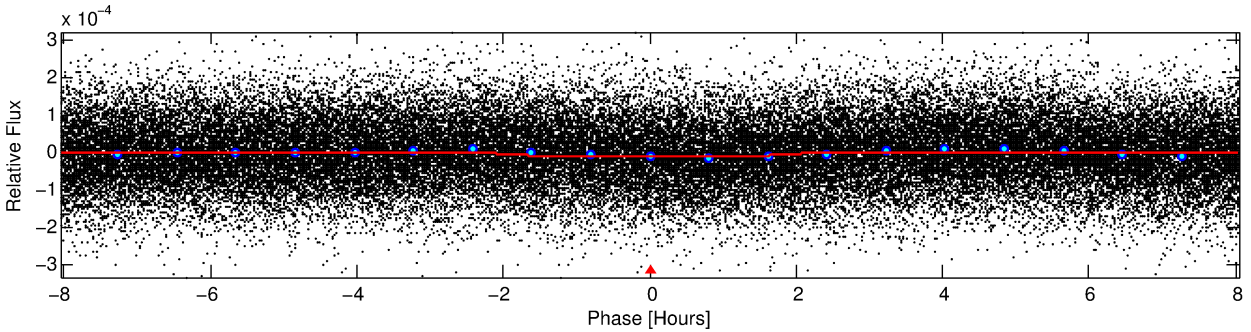
DV One-Page Summary

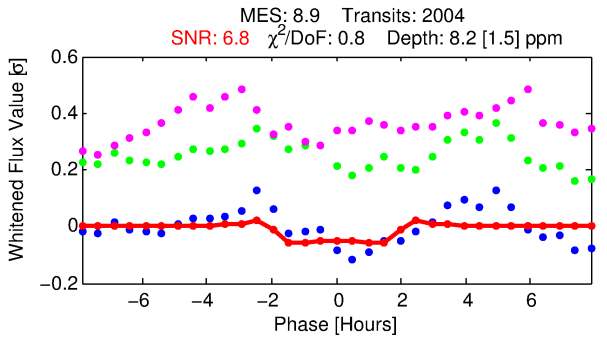
KIC: 5179328 Candidate: 1 of 10 Period: 0.670 d

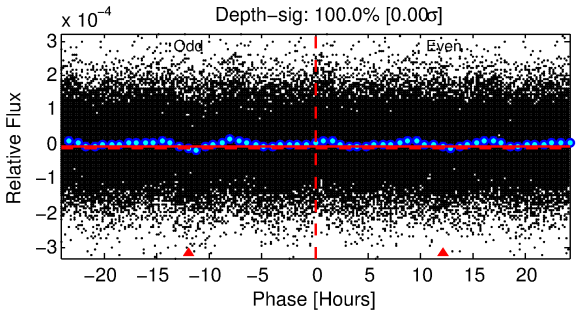


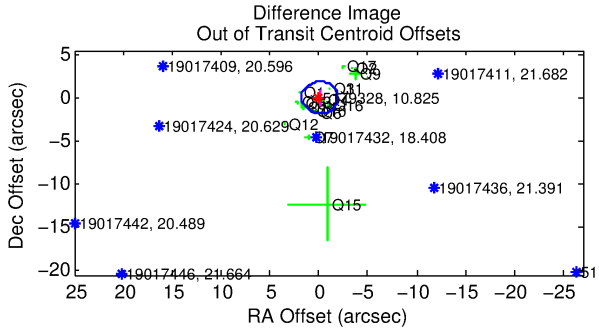












DV Fit Results:

Period = 0.67037 [0.00001] d
Epoch = 131.7647 [0.0038] BKJD
Rp/R* = 0.0031 [0.0010]
a/R* = 1.10 [0.36]
b = 0.90 [0.42]

Seff = 21602.52 [5554.76]
Teq = 3091 [199] K
Rp = 0.61 [0.23] Re
a = 0.0169 [0.0028] AU
Ag = 2.45 [1.84] [0.79σ]
Teffp = 5982 [1059] K [2.68σ]

DV Diagnostic Results:

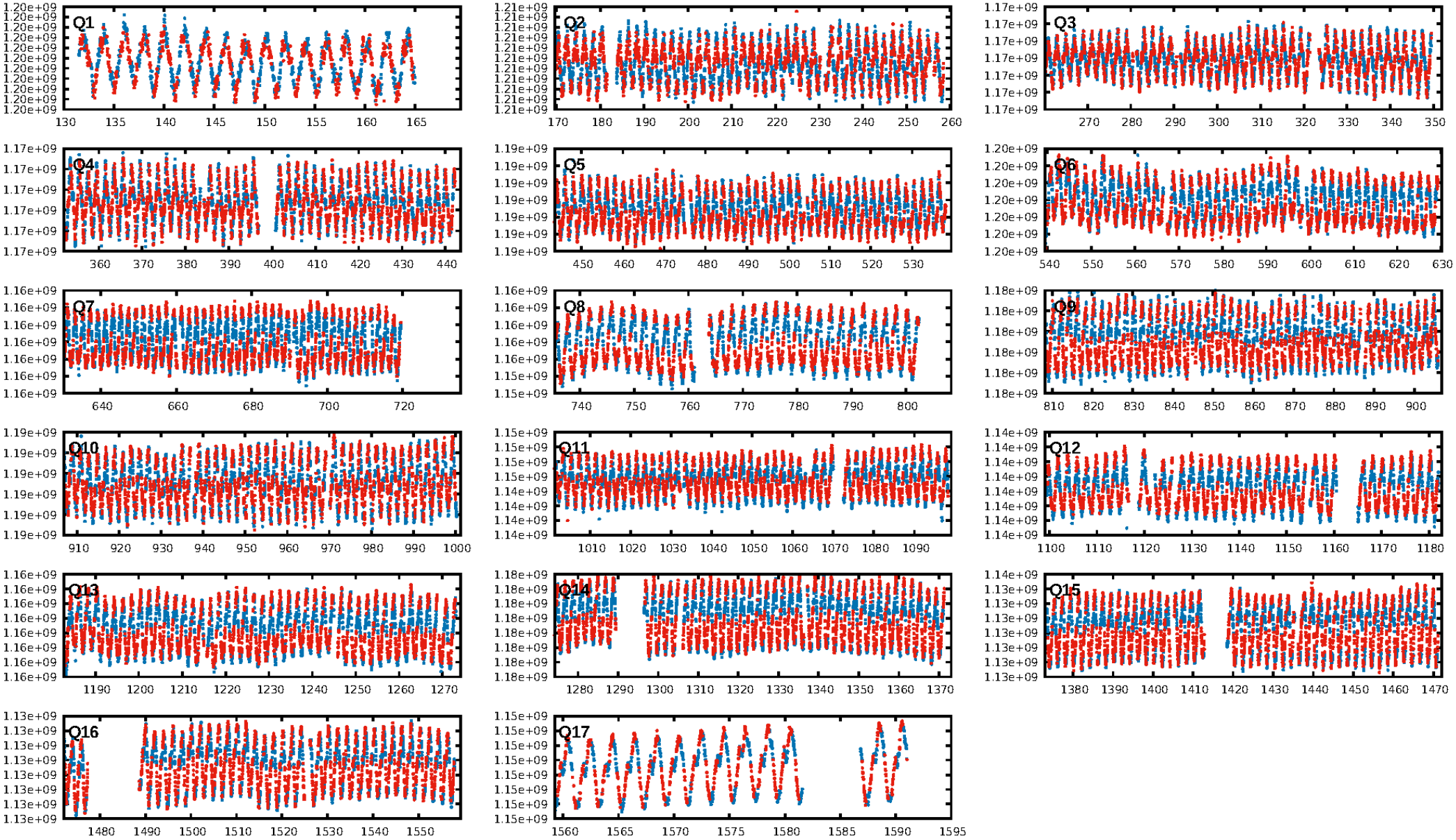
ShortPeriod−sig: N/A
LongPeriod−sig: 100.0% [162.22σ]
ModelChiSquare2−sig: N/A
ModelChiSquareGof−sig: N/A
Bootstrap−pfa: N/A
RollingBand−fgt: 1.00 [1915/1915]
GhostDiagnostic−chr: 1.653

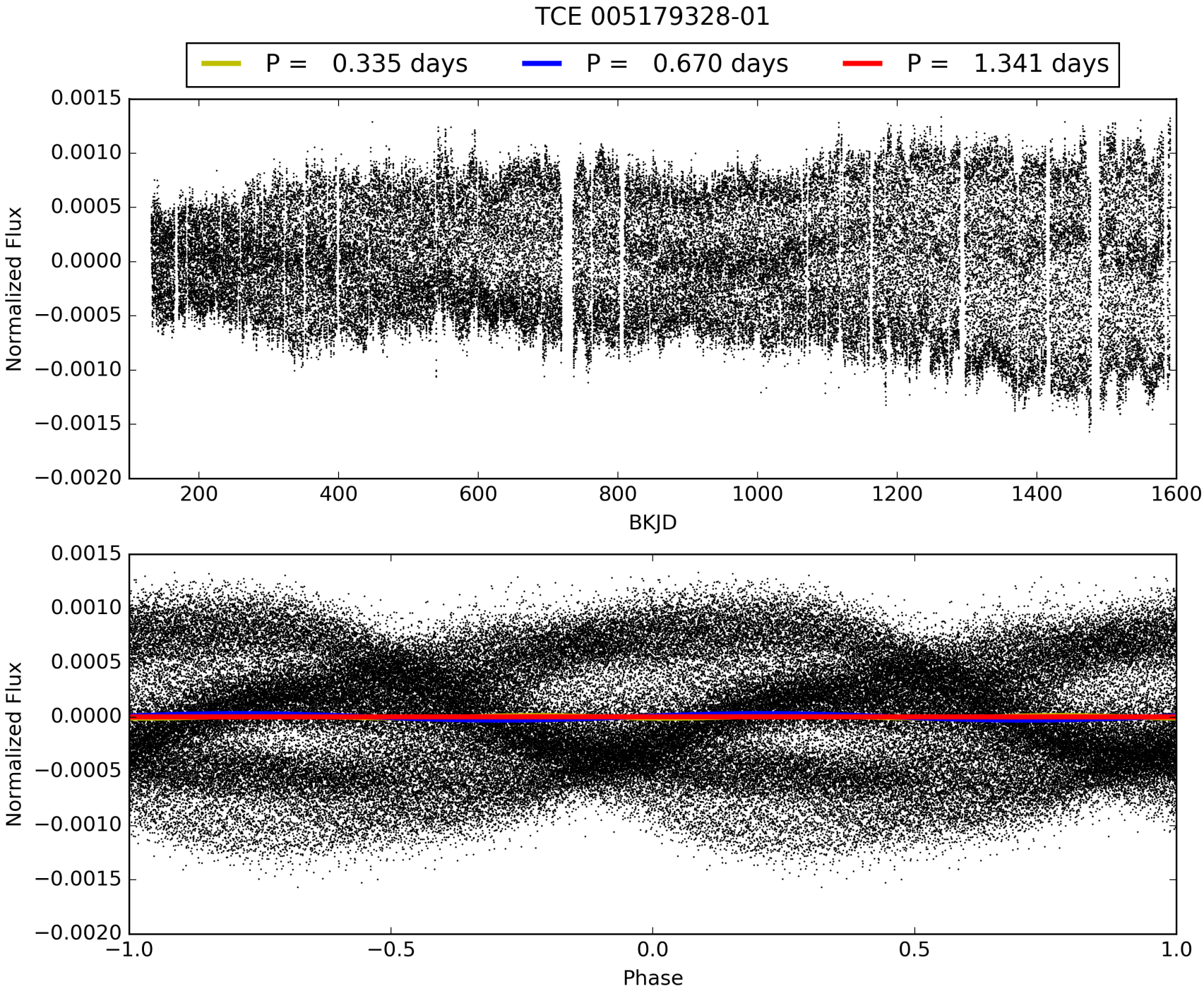
Centroid−sig: 0.0%
Centroid−so: 2.442 arcsec [2.44σ]
OotOffset−rm: 0.084 arcsec [0.14σ]
KicOffset−rm: 0.158 arcsec [0.23σ]
OotOffset−st: 4/4/3/5 [16]
KicOffset−st: 4/4/3/5 [16]
DiffImageQuality−fgm: 0.44 [7/16]
DiffImageOverlap−fno: 1.00 [17/17]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 −− Date Generated: 01−Feb−2016 20:02:00 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005179328-01, PDC Light Curves

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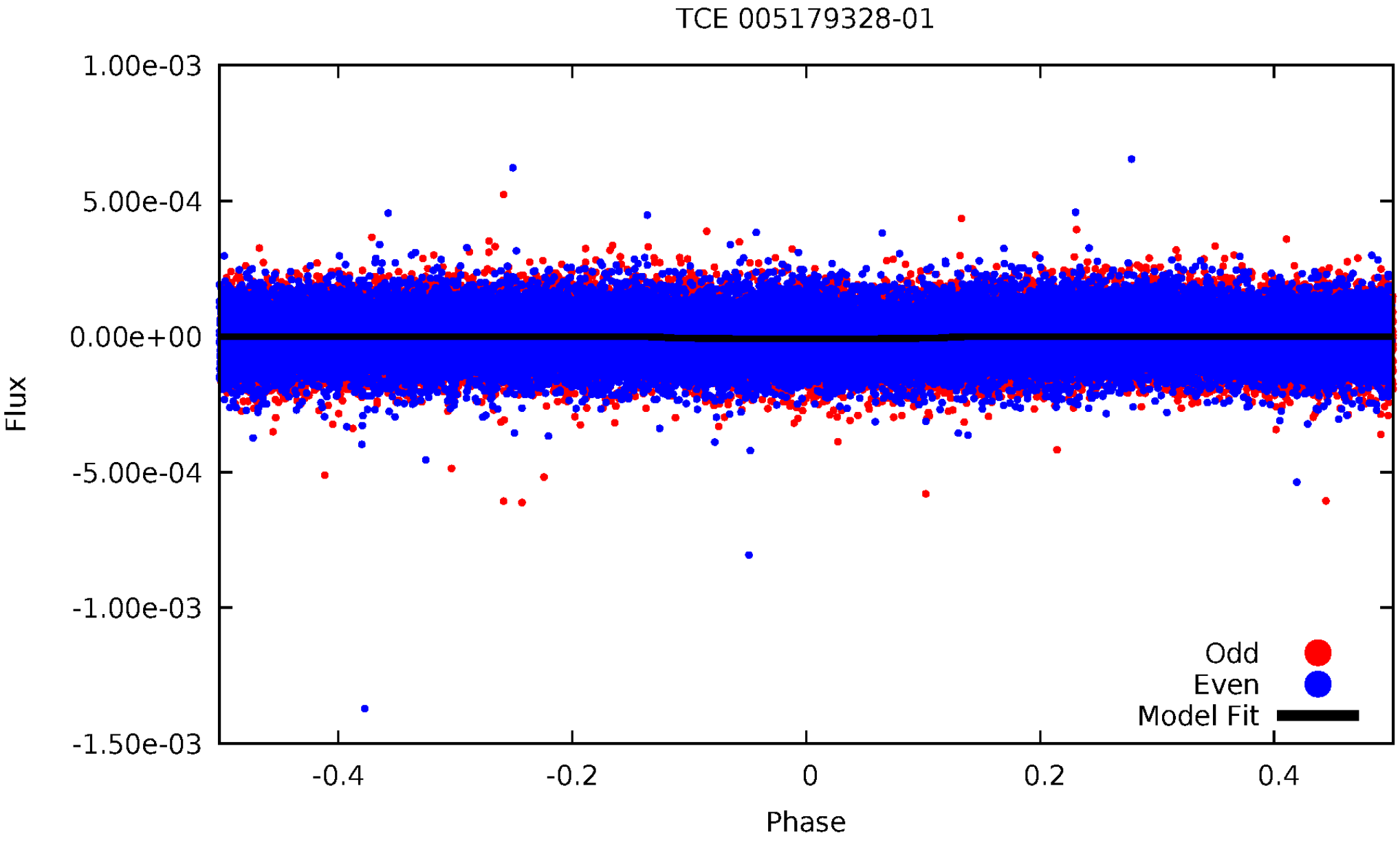
P = 0.670 days
P = 1.341 days
Normalized Flux
BKJD
Normalized Flux
Phase

DV Odd/Even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5.00e-04
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Flux
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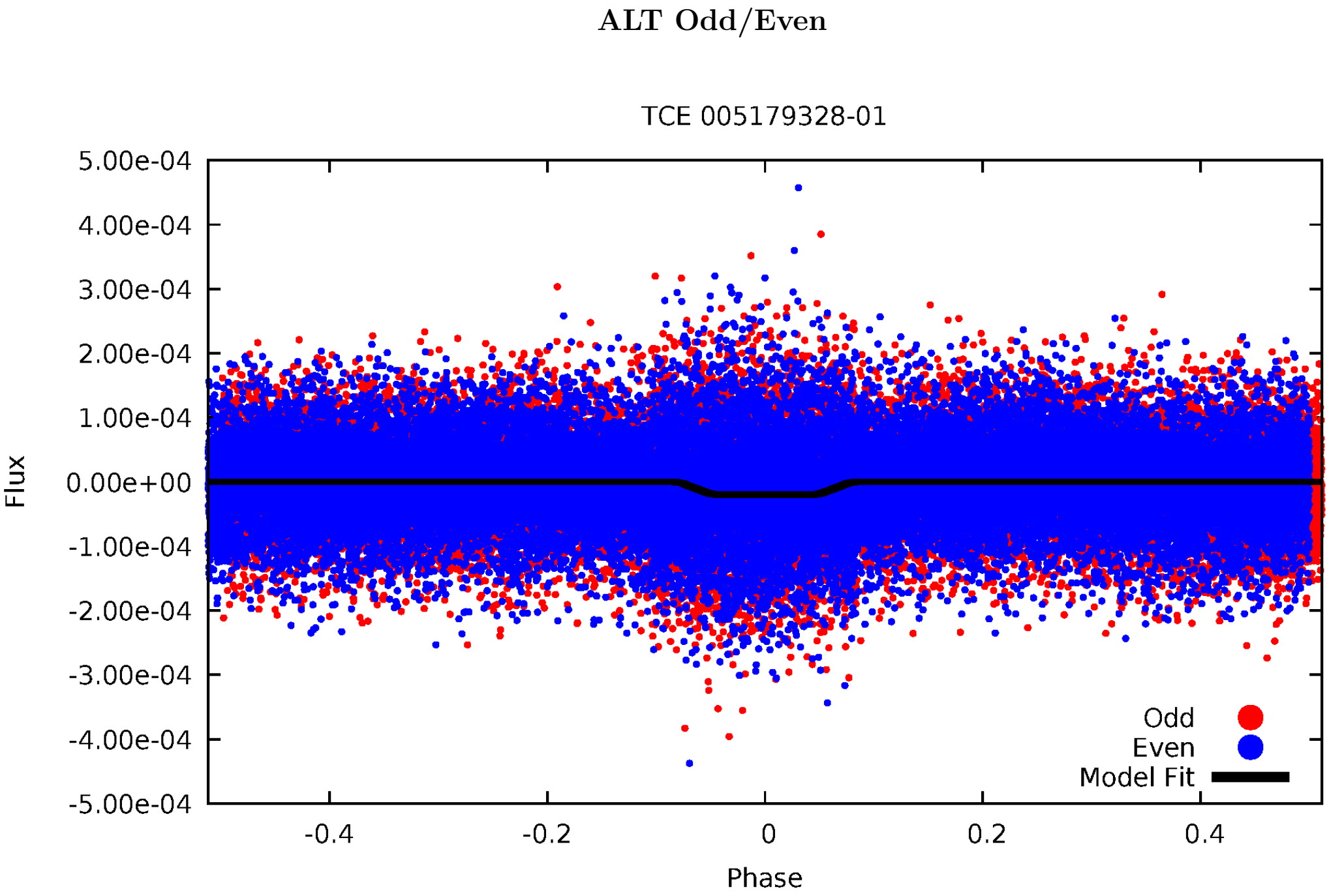
-0.2
0
0.2
0.4
Phase
Odd
Even
Model Fit


ALT Odd/Even
TCE 005179328-01
5.00e-04
4.00e-04
3.00e-04
2.00e-04
1.00e-04
0.00e+00
-1.00e-04
-2.00e-04
-3.00e-04
-4.00e-04
-5.00e-04
Flux
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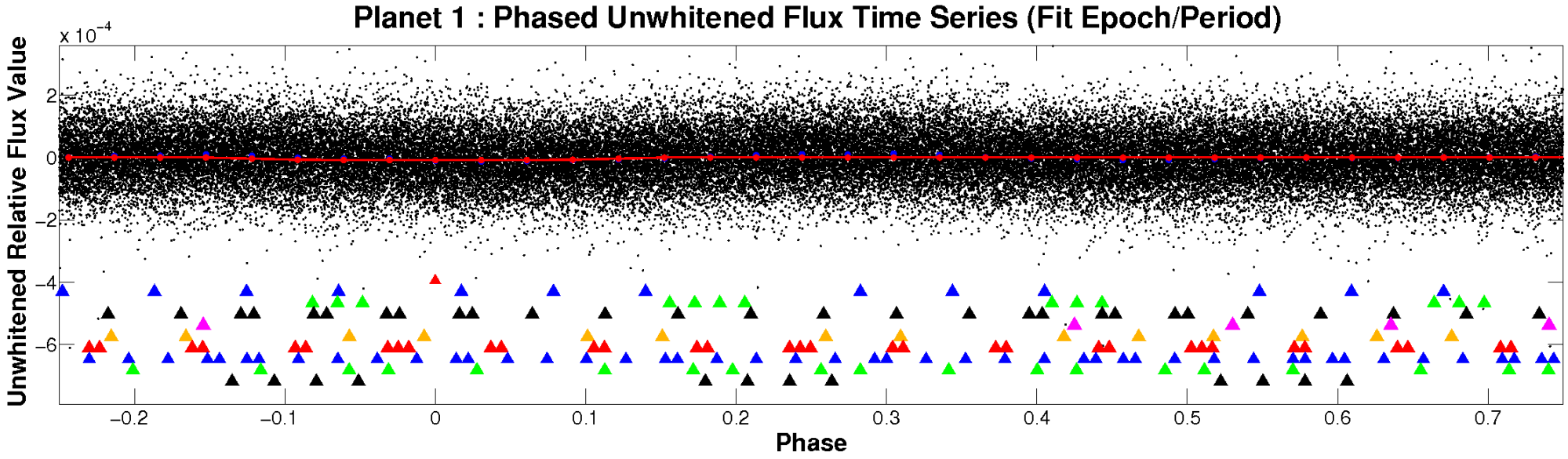
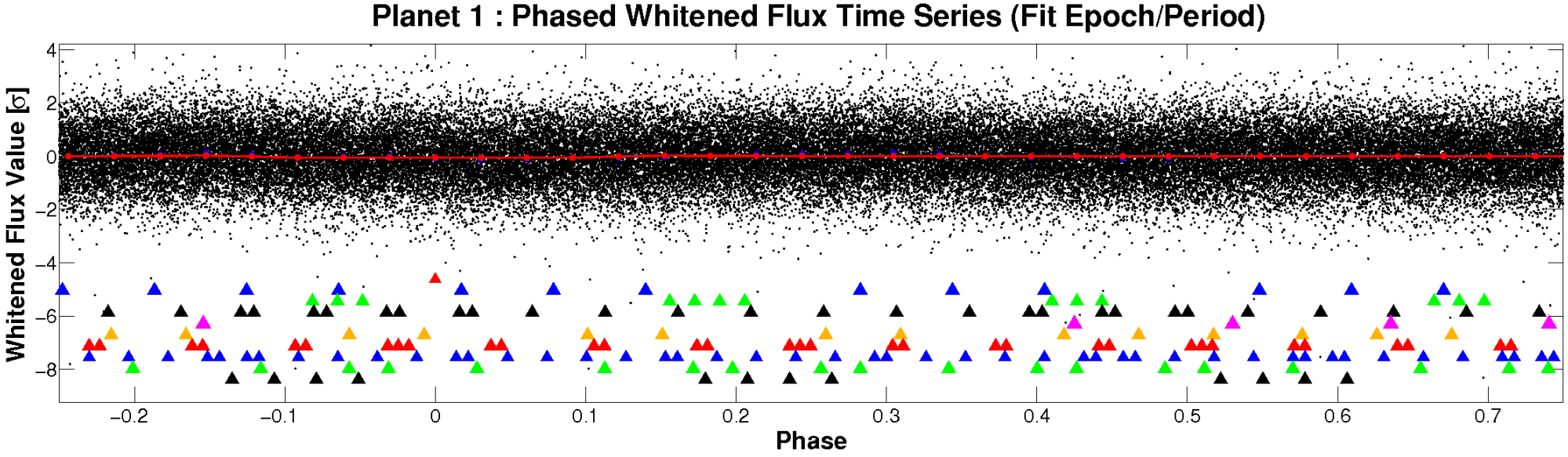
-0.2
0
0.2
0.4
Phase
Odd
Even
Model Fit

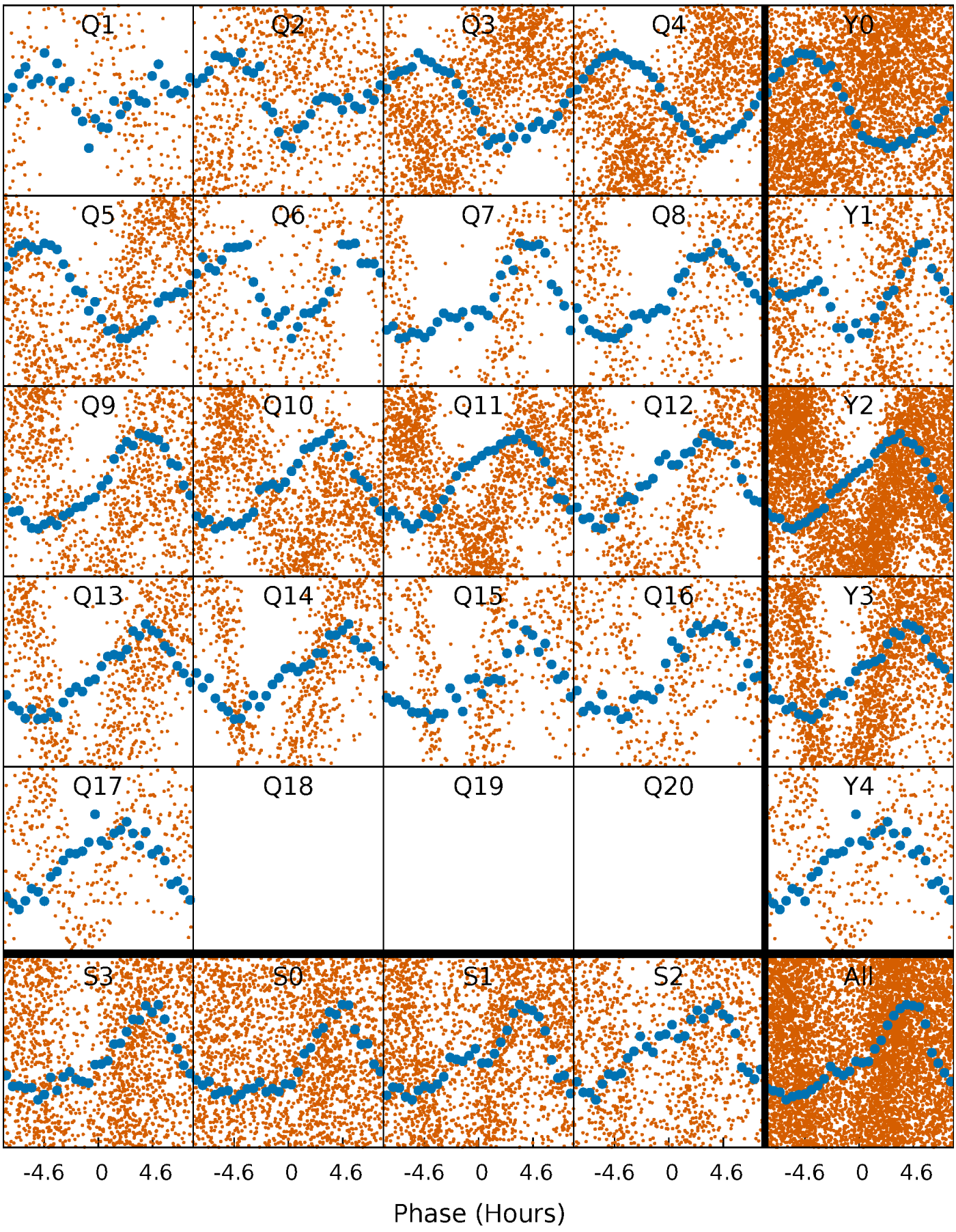
Non-Whitened Vs. Whitened Light Curve





PDC Quarter-Phased Transit Curves

TCE 005179328-01 P= 0.670370 Days T_0=131.764741 (BKJD)



DV Quarter-Phased Transit Curves

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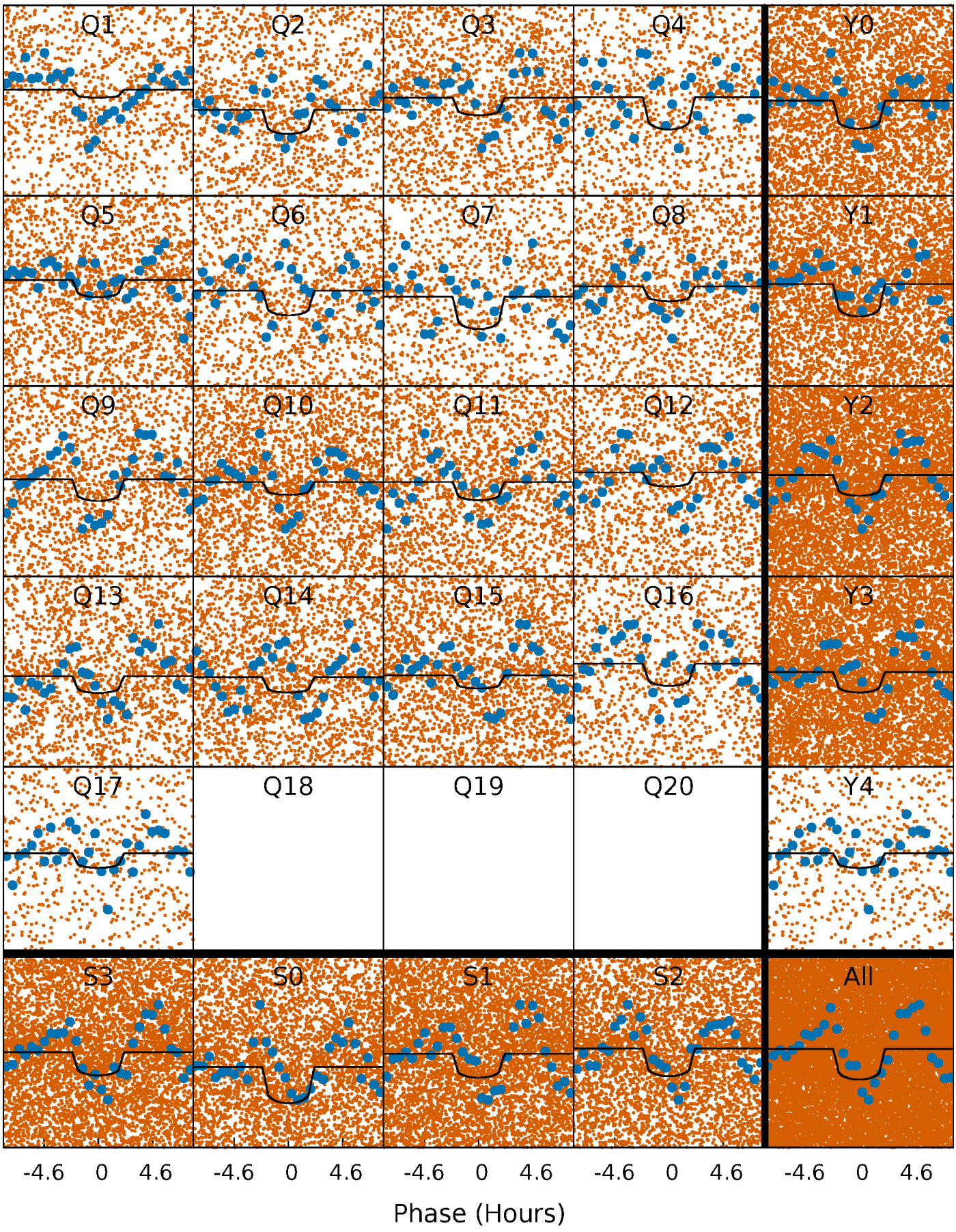
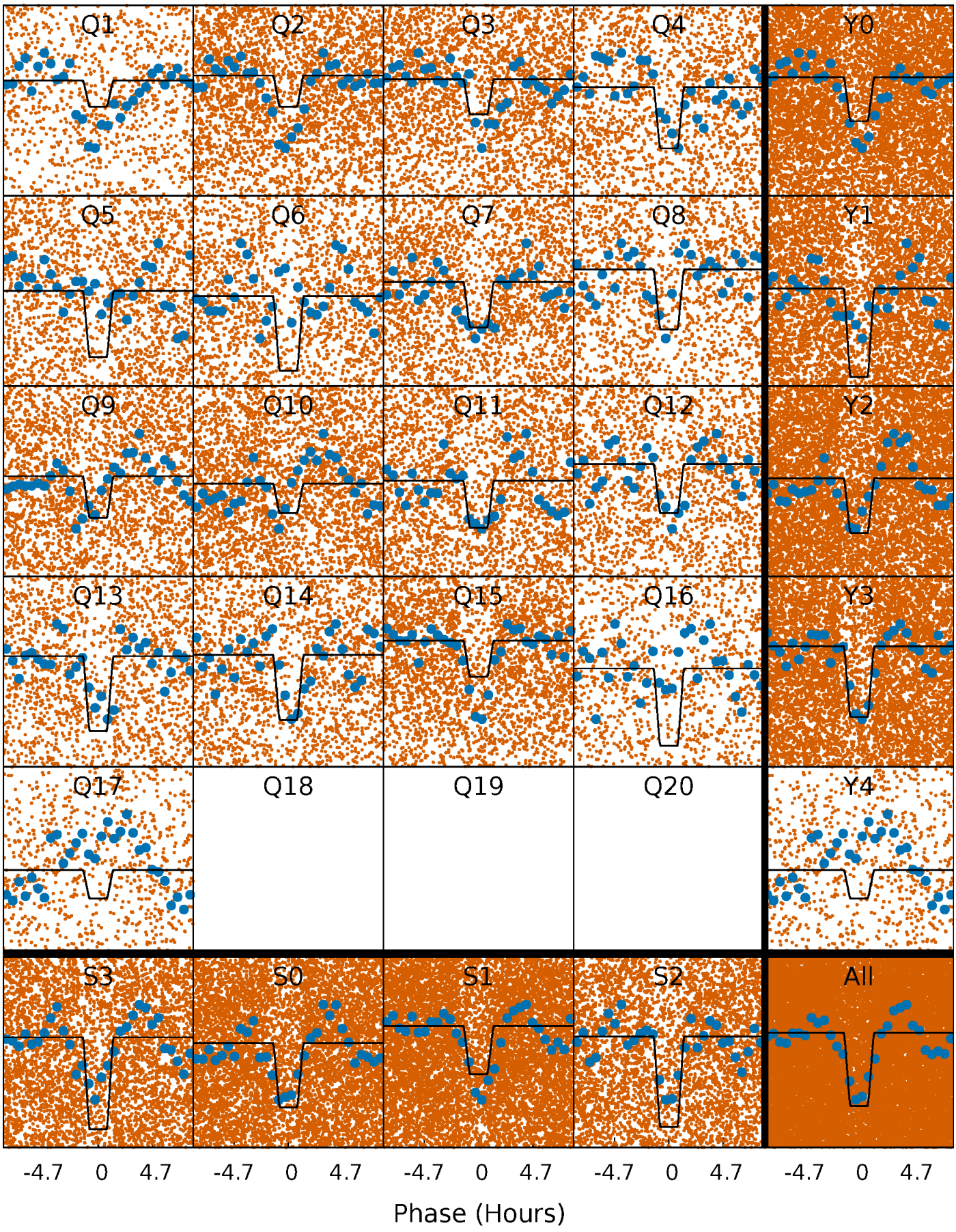


Alt. Detrend Quarter-Phased Transit Curves

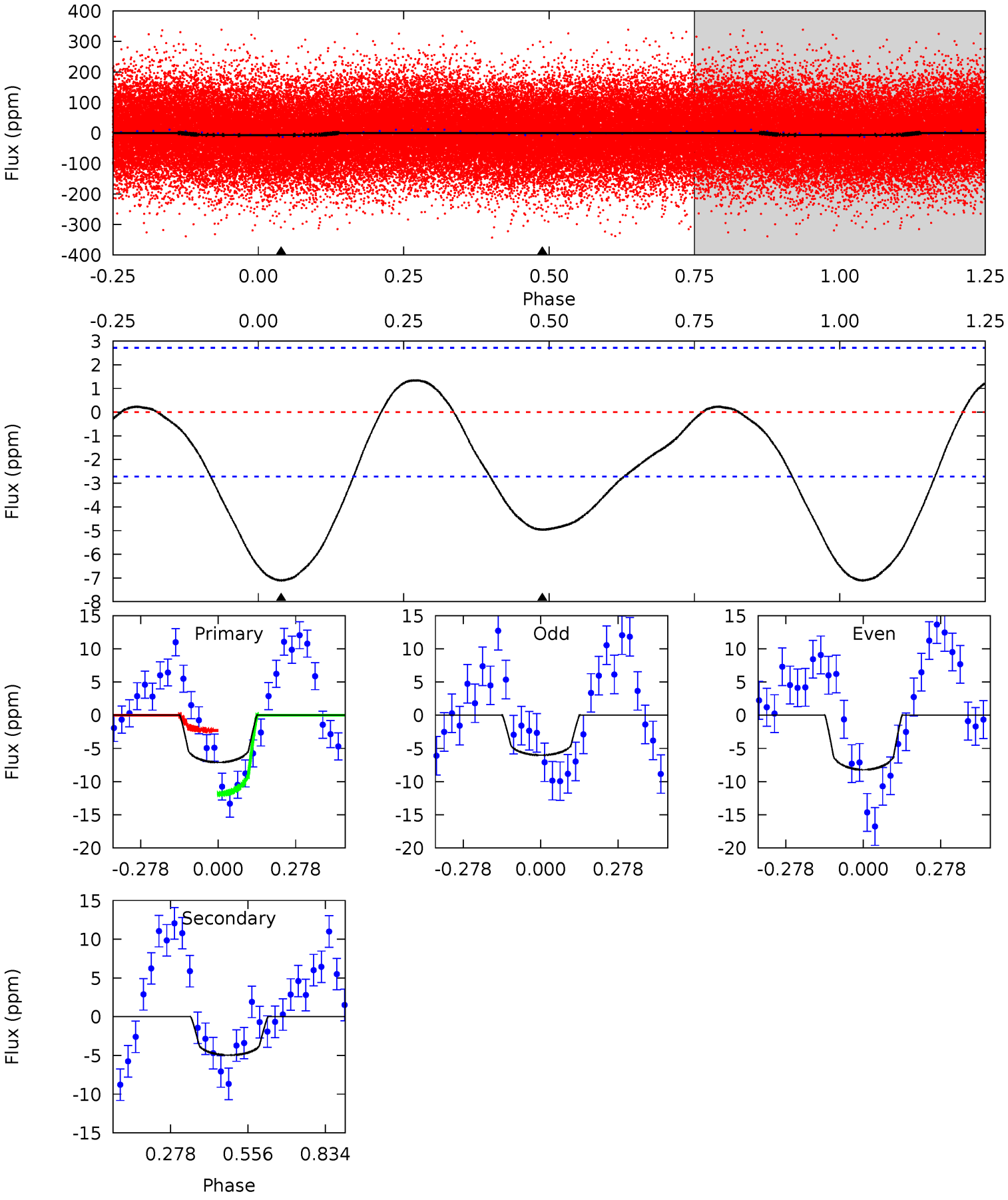
TCE 005179328-01 P= 0.670398 Days T_0=131.765006 (BKJD)



DV Model-Shift Uniqueness Test

005179328-01, P = 0.670370 Days, E = 131.094371 Days

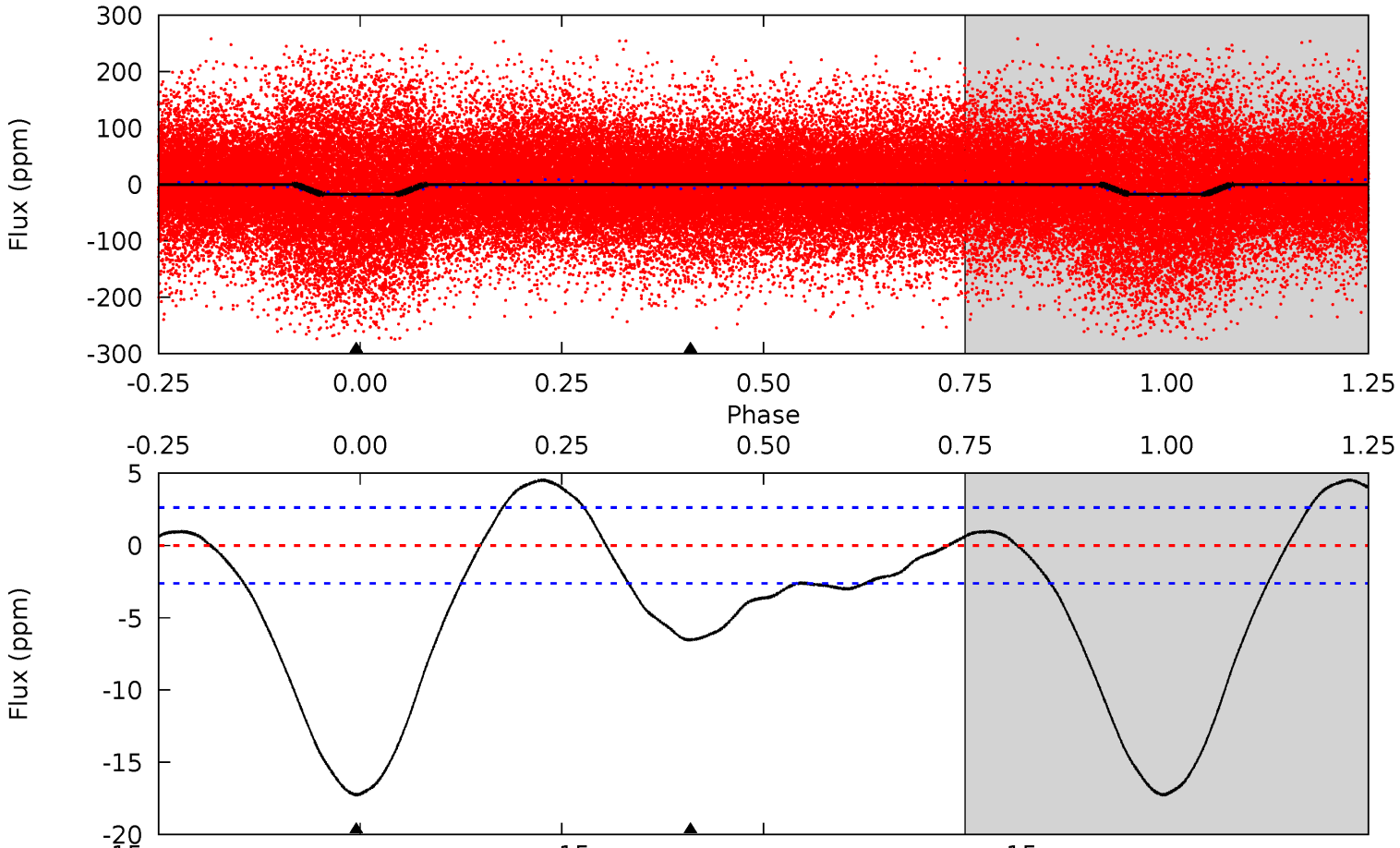
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	7.94	0	0	4.35	1.08	0.74	11.4	11.4	7.94	7.94	1.76	0.97	0.16	7.55

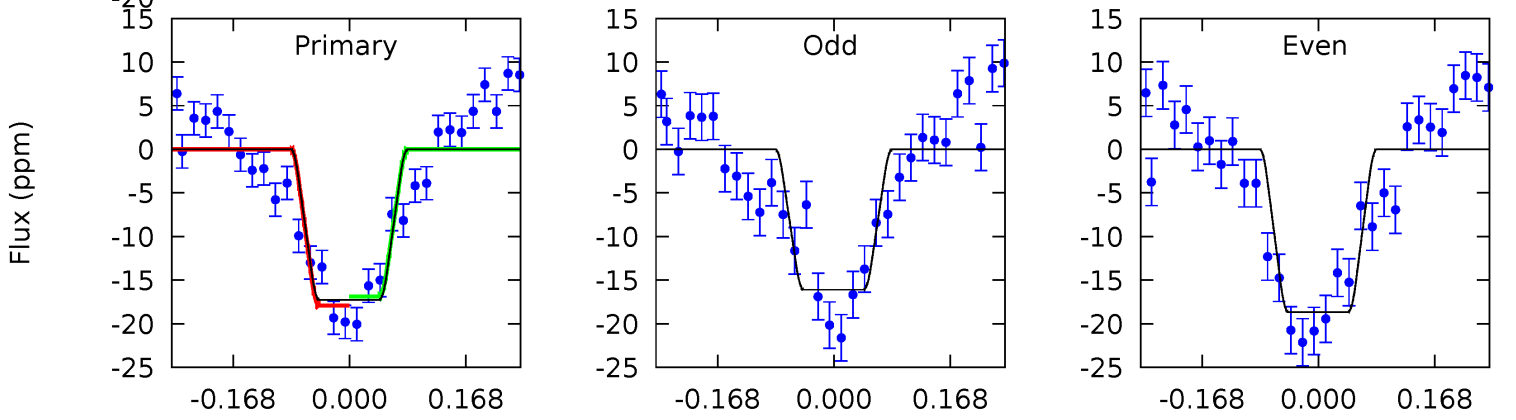


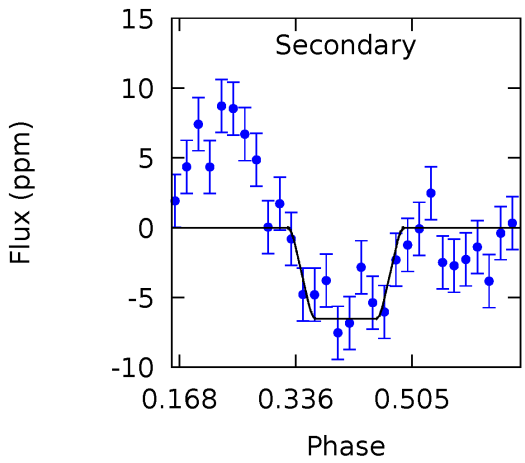
Alt Model-Shift Uniqueness Test

005179328-01, P = 0.670398 Days, E = 131.094608 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
29.3	11.1	0	0	4.45	1.38	4.01	29.3	29.3	11.1	11.1	2.16	0.91	0.21	0.90







Stellar Parameters For KIC 005179328

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6762^{+81}_{-81}	$4.077^{+0.143}_{-0.117}$	$-0.020^{+0.150}_{-0.150}$	$1.818^{+0.307}_{-0.341}$	$1.444^{+0.115}_{-0.115}$	$0.338^{+0.242}_{-0.122}$
	+1%/-1%	+4%/-3%	+750%/-750%	+17%/-19%	+8%/-8%	+72%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005179328-01 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-5±1	$0.61^{+0.21}_{-0.22}$	4326^{+185}_{-214}	5528^{+1557}_{-784}	$2.085^{+3.025}_{-0.929}$
Alt.	-7±1	$0.86^{+0.24}_{-0.23}$	4302^{+205}_{-201}	4951^{+852}_{-600}	$1.411^{+1.241}_{-0.550}$

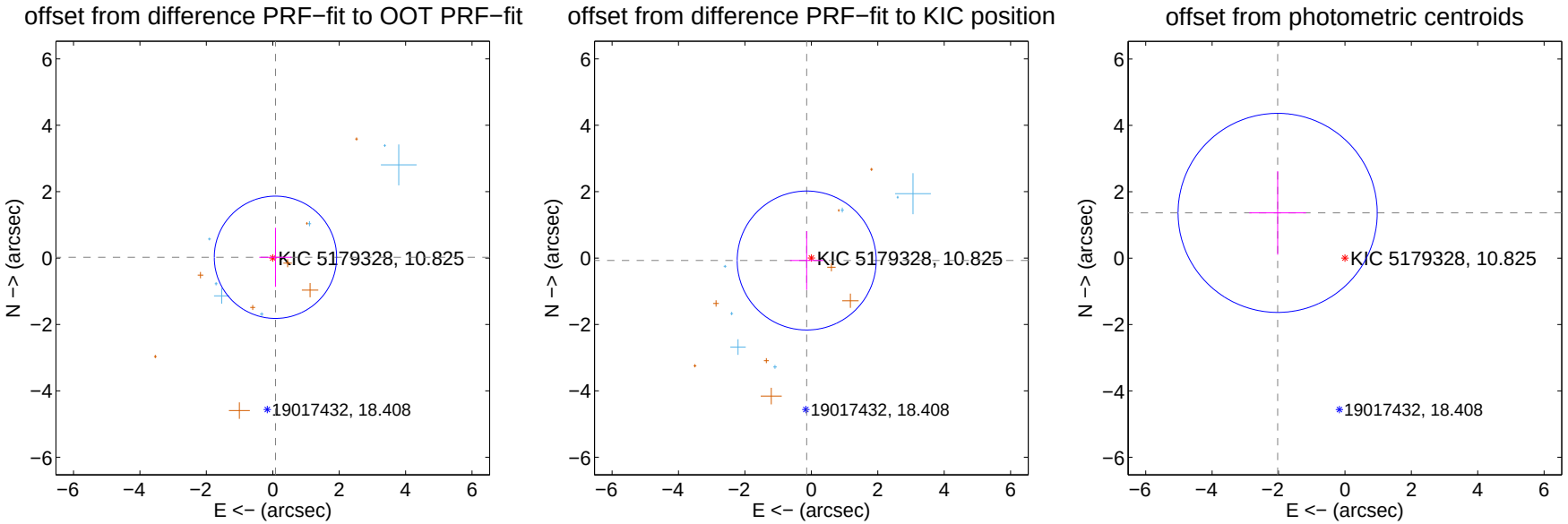
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

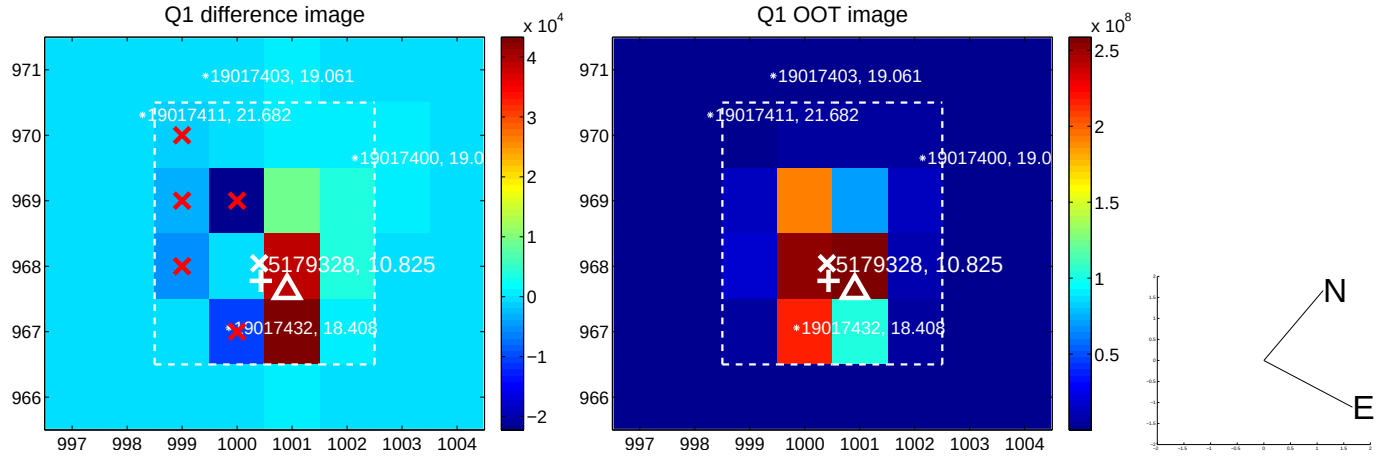
Supplemental centroid analysis for 005179328-01. Kepler magnitude: 10.82. Transit SNR 6.77
There are 7 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 1.16 arcsec

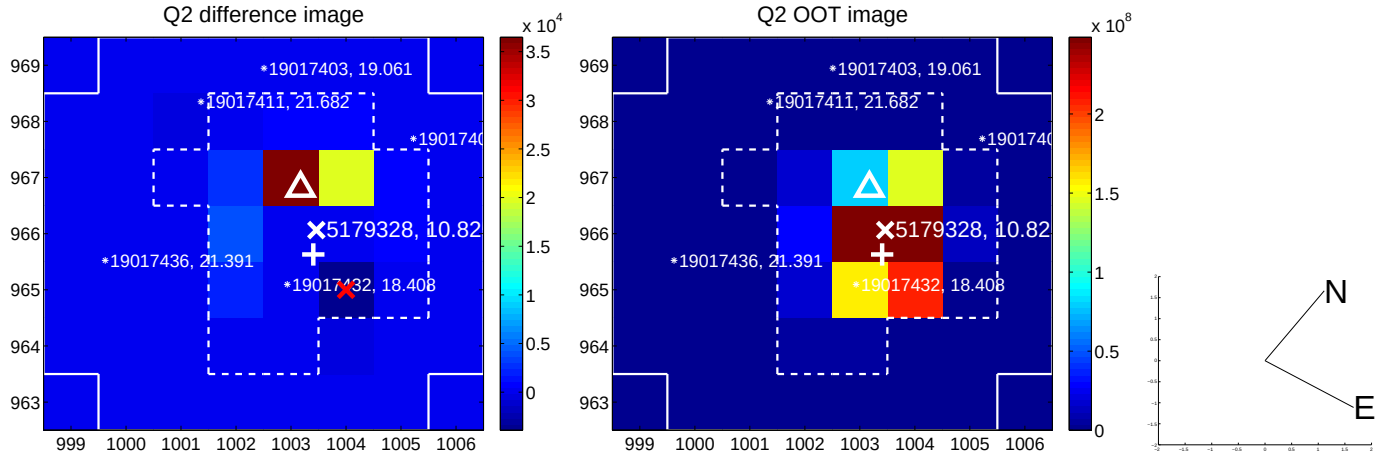
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.084 ± 0.614	0.14	-0.080 ± 0.488	0.023 ± 0.890
PRF-fit source offset from KIC position	0.158 ± 0.698	0.23	0.140 ± 0.502	-0.074 ± 0.886
photometric centroid source offset	2.44 ± 1.00	2.44	2.03 ± 0.86	1.36 ± 1.26

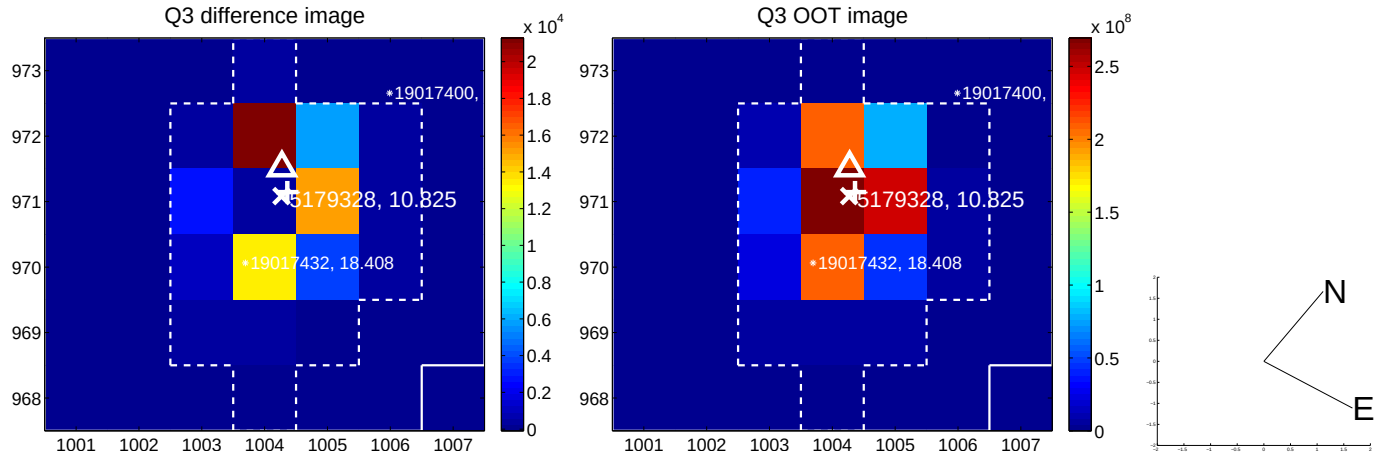


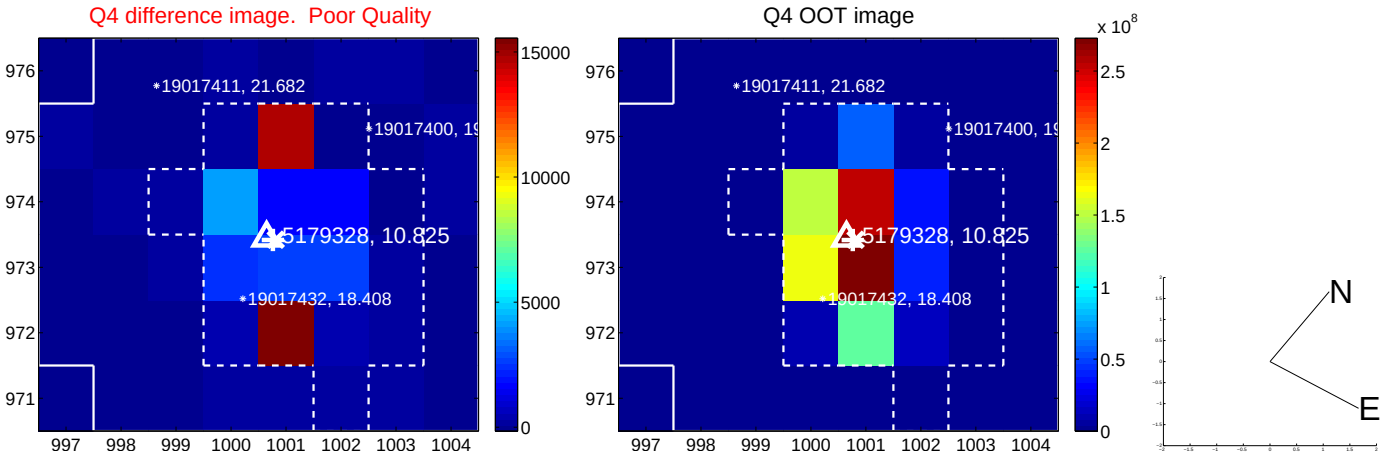
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs $> 15,000,000$ are from the UKIRT catalog.

white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

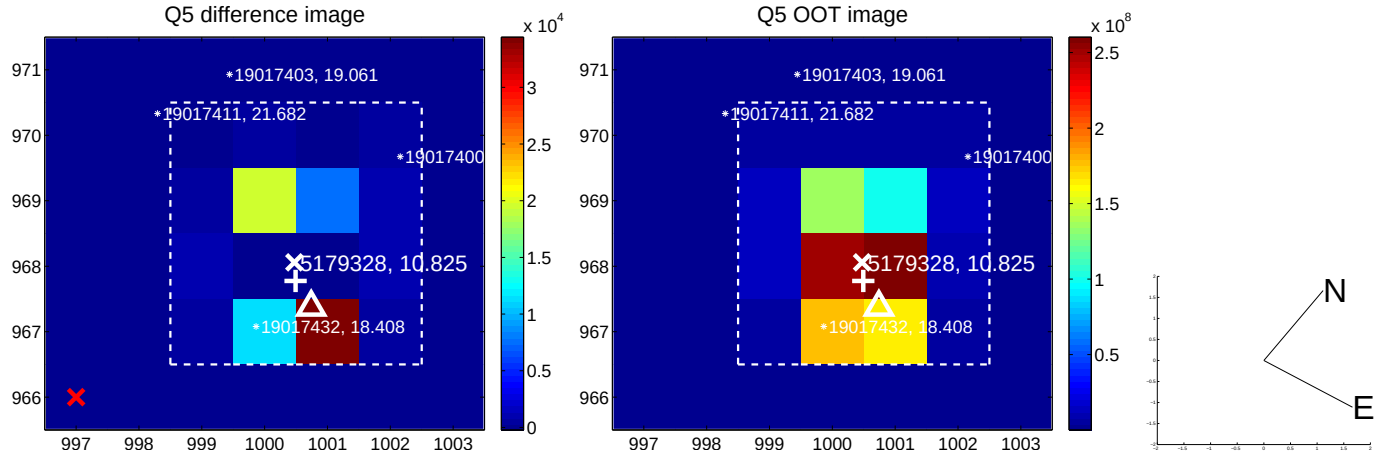


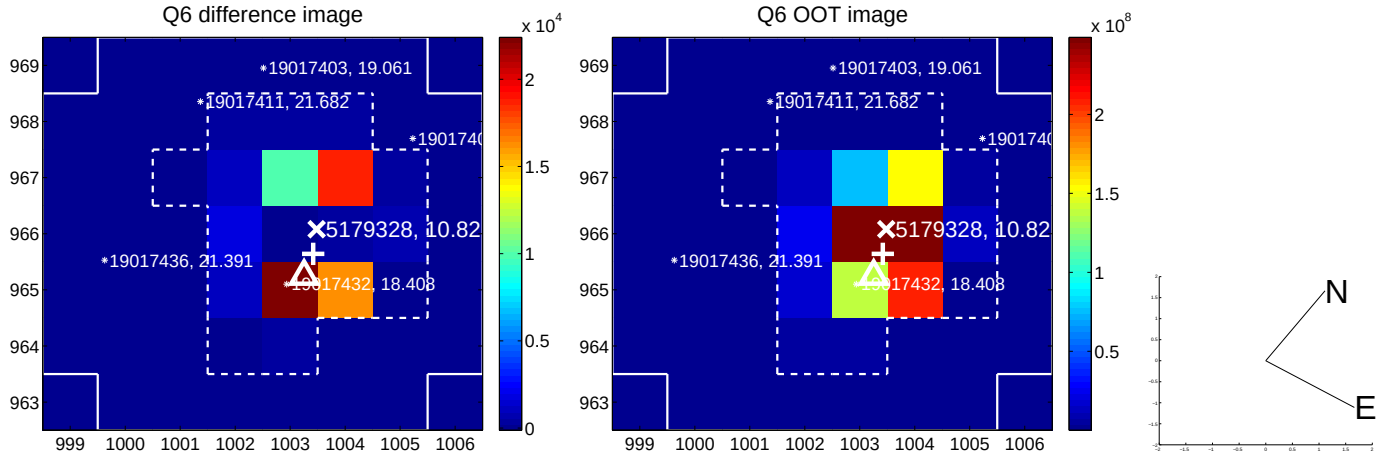


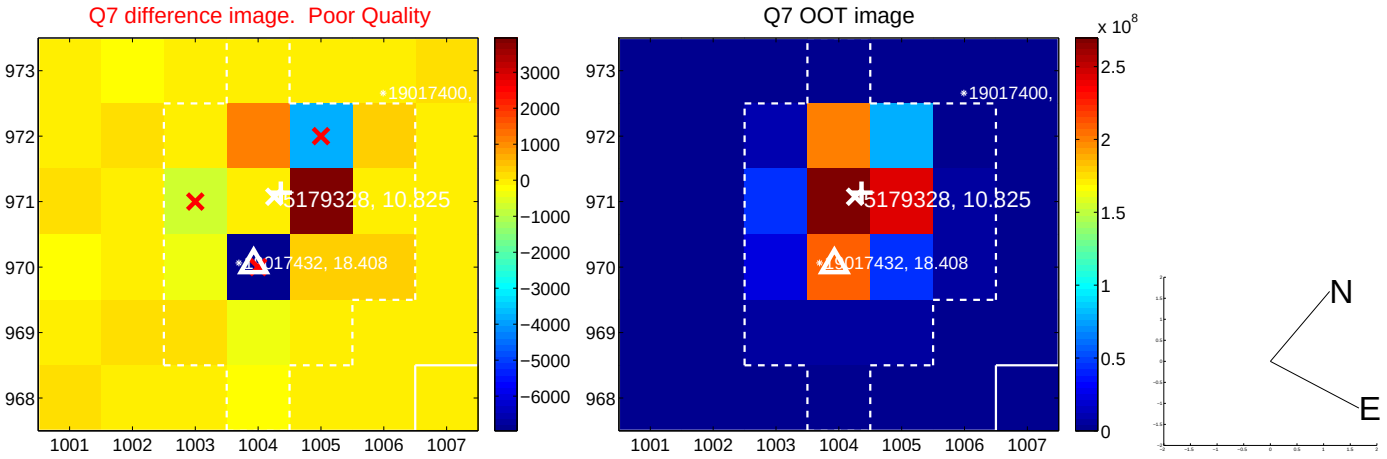


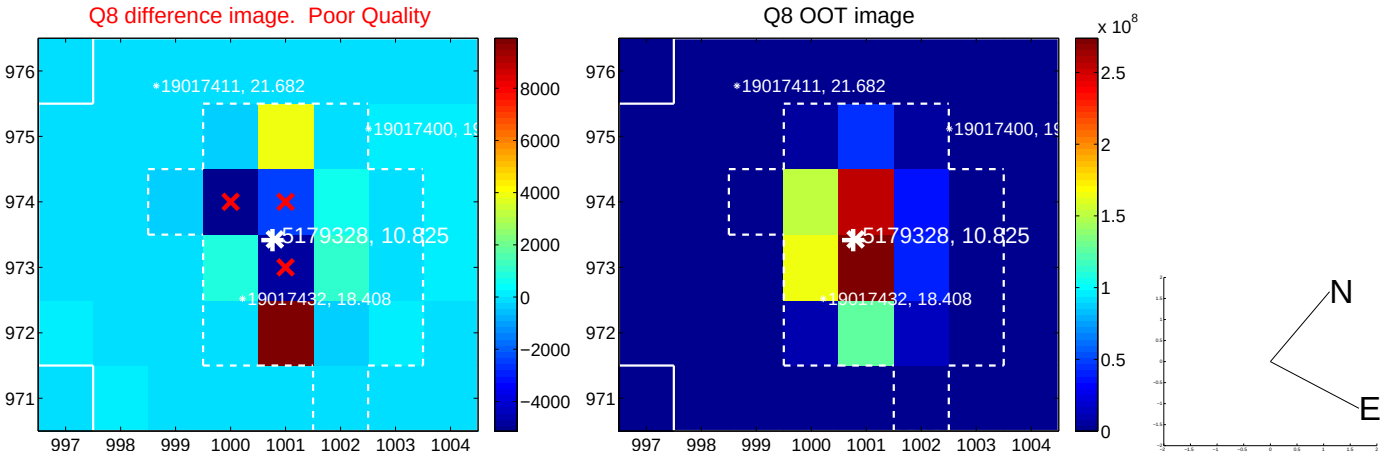


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

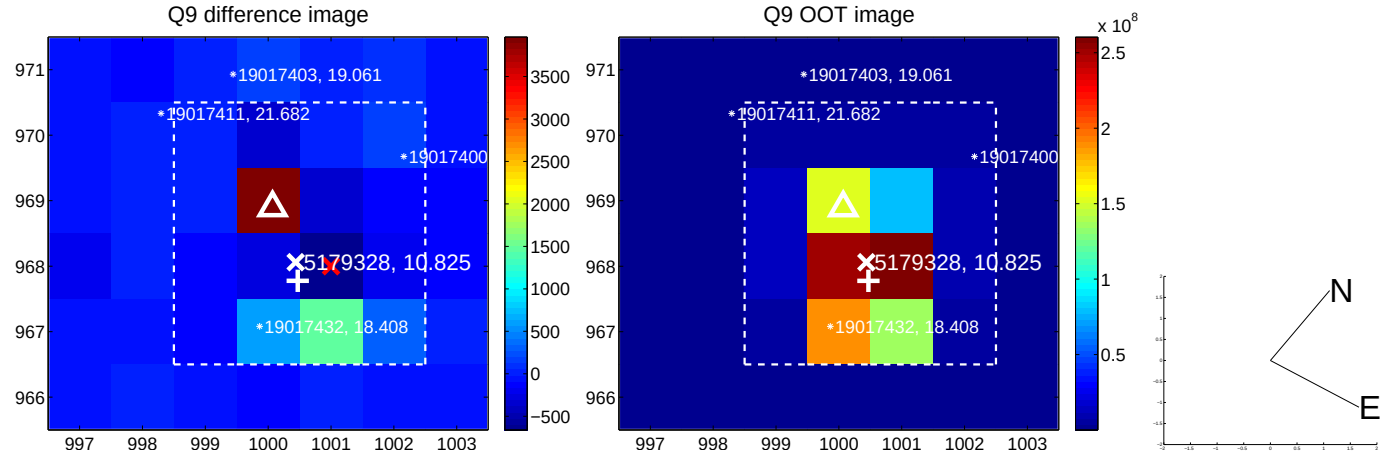


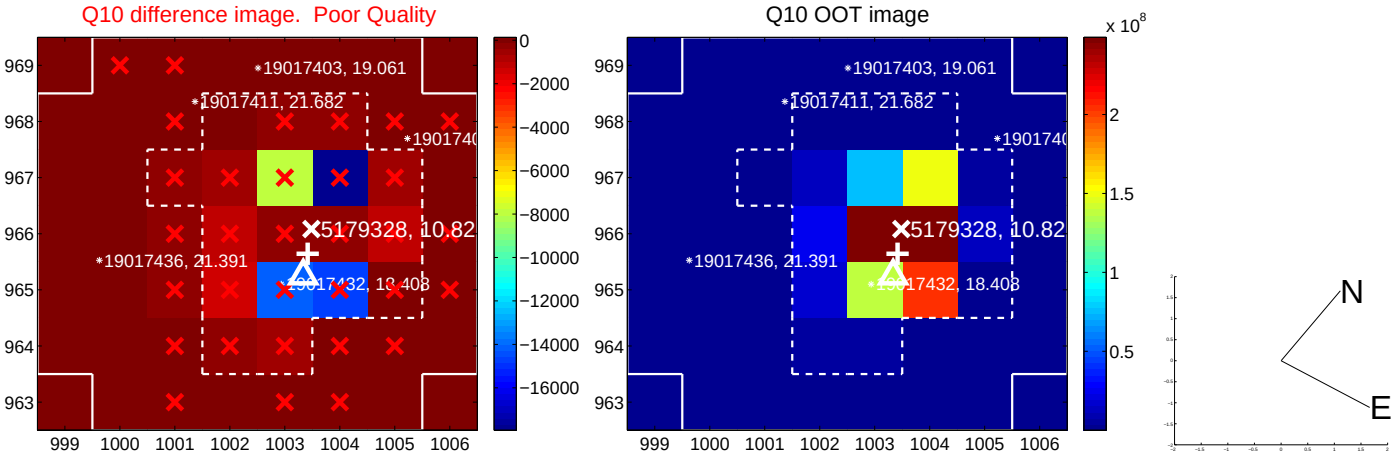


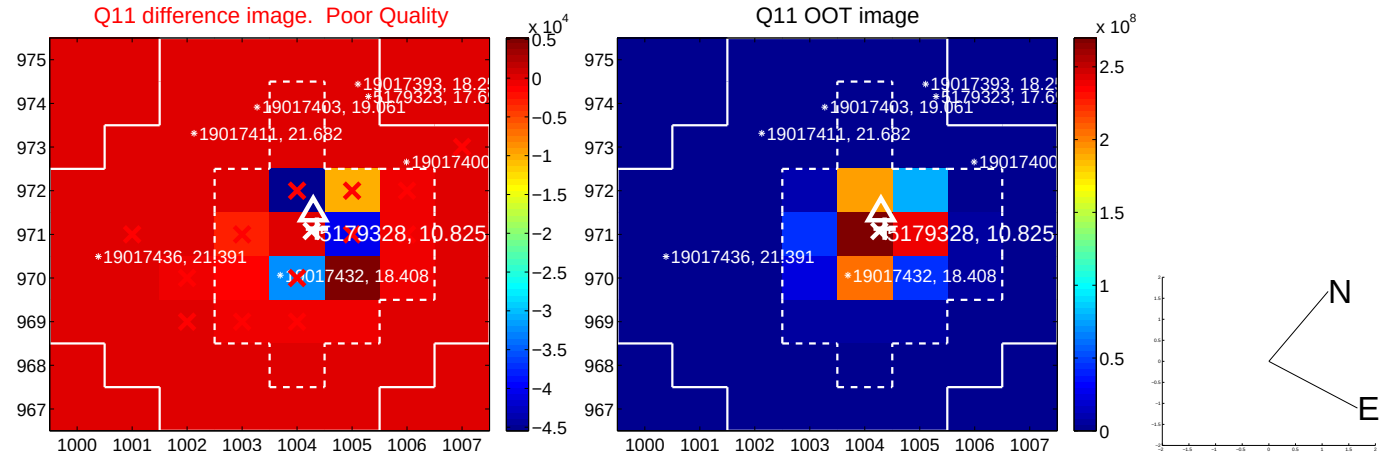


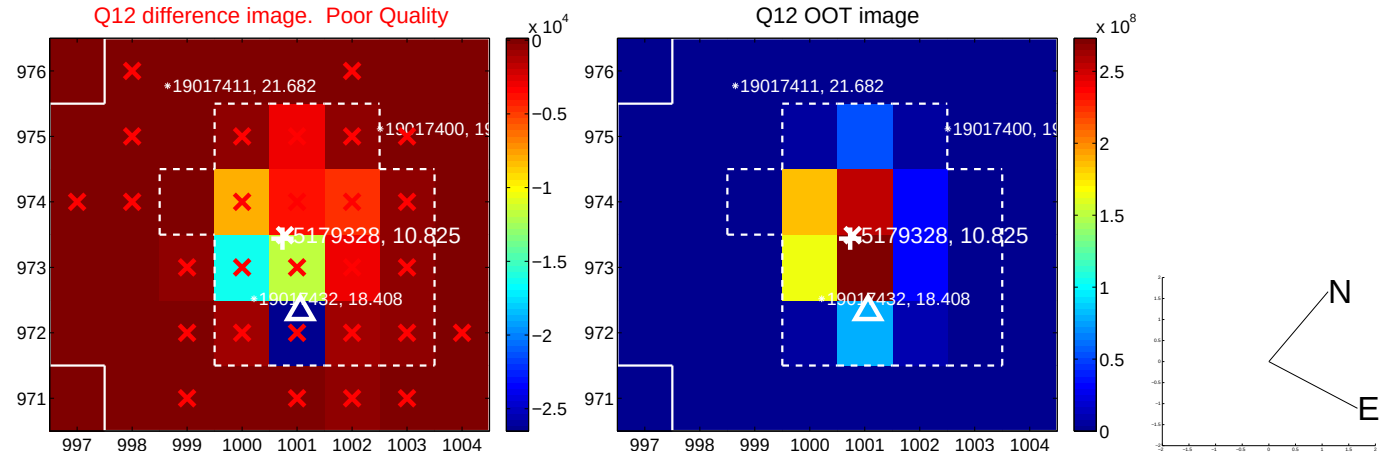


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

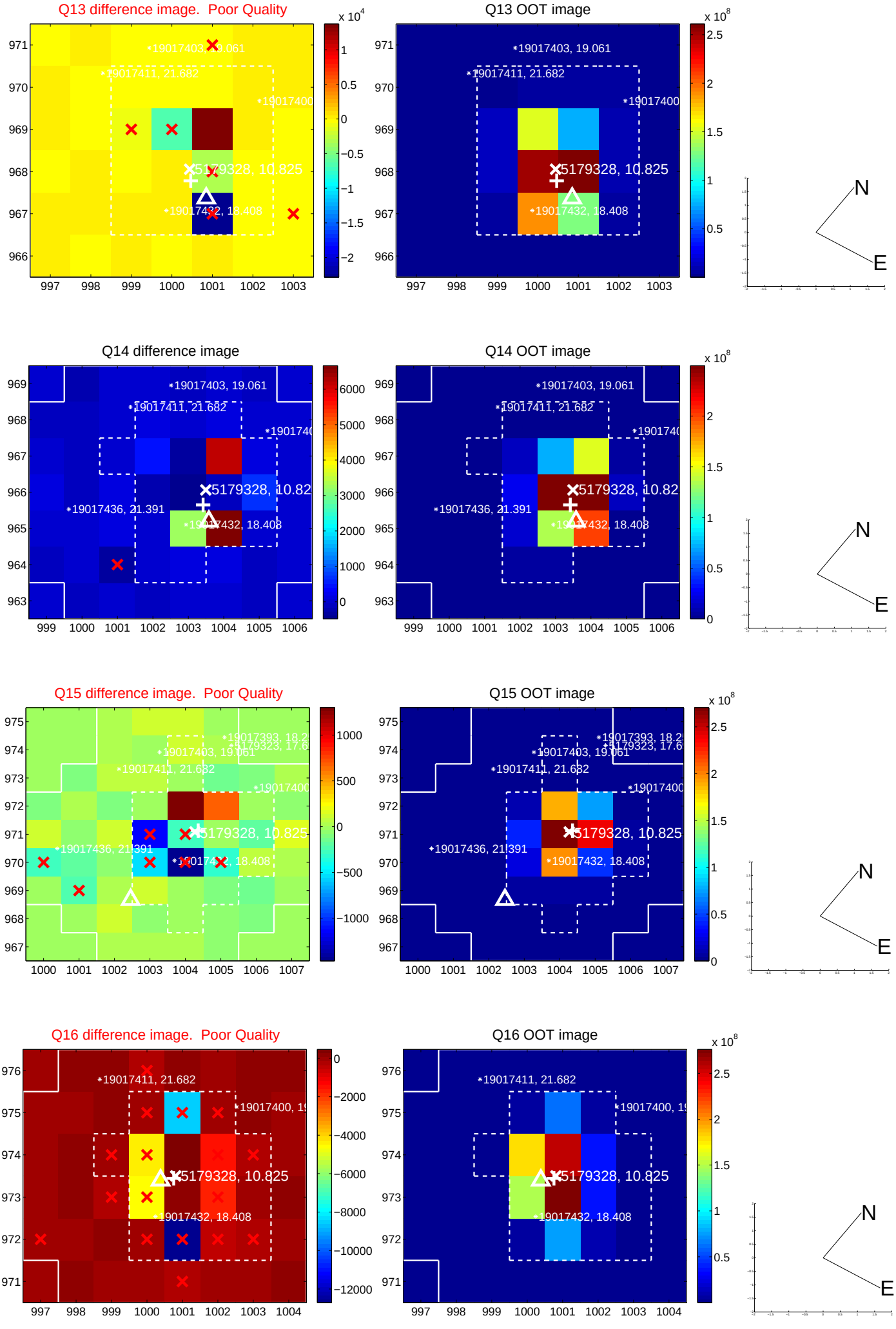




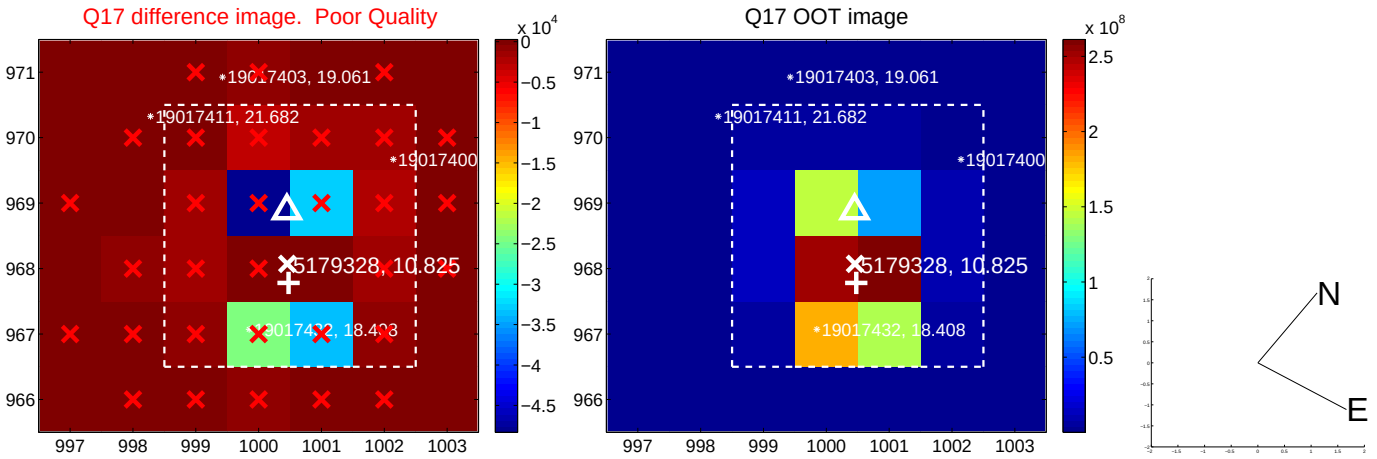


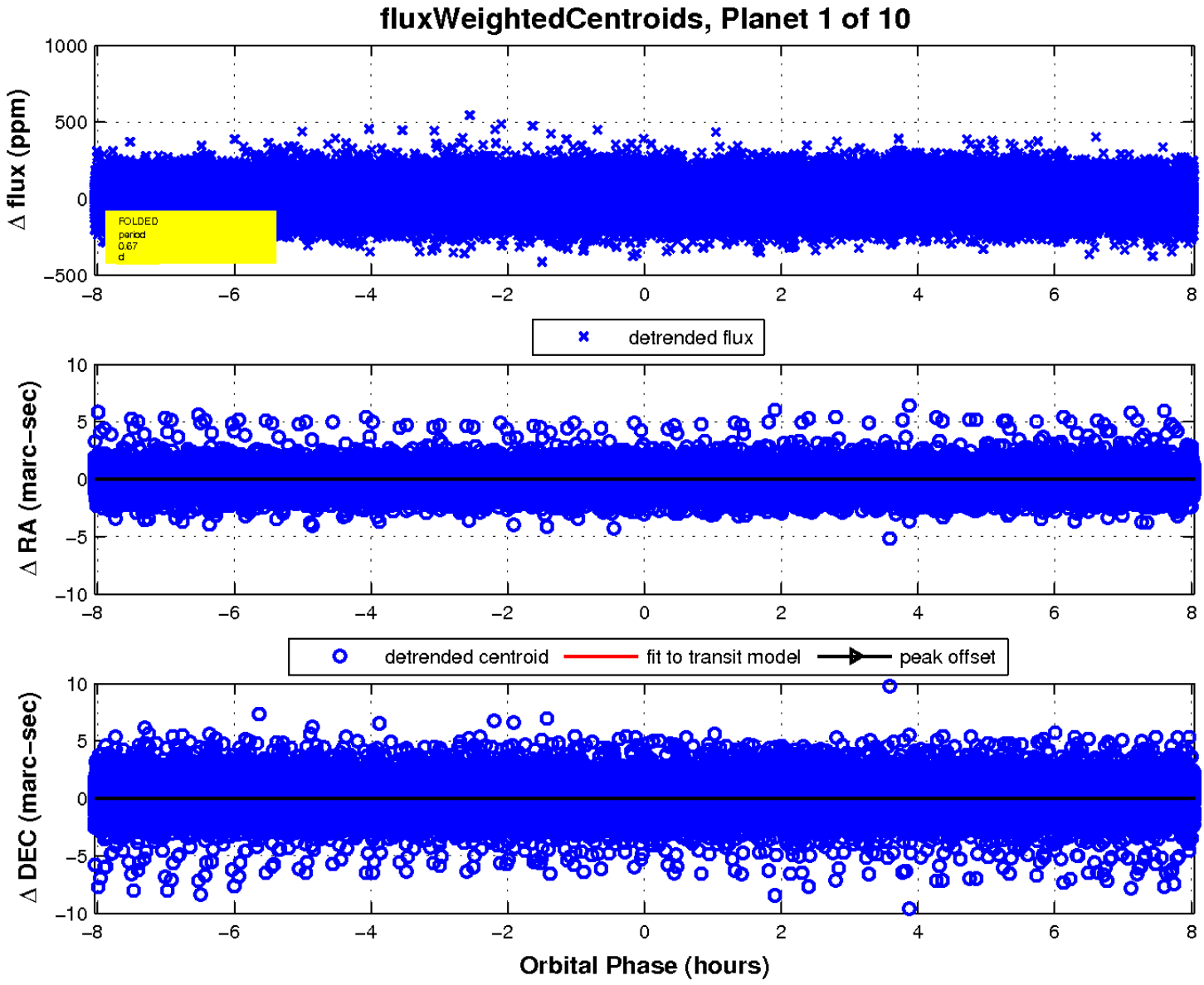


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

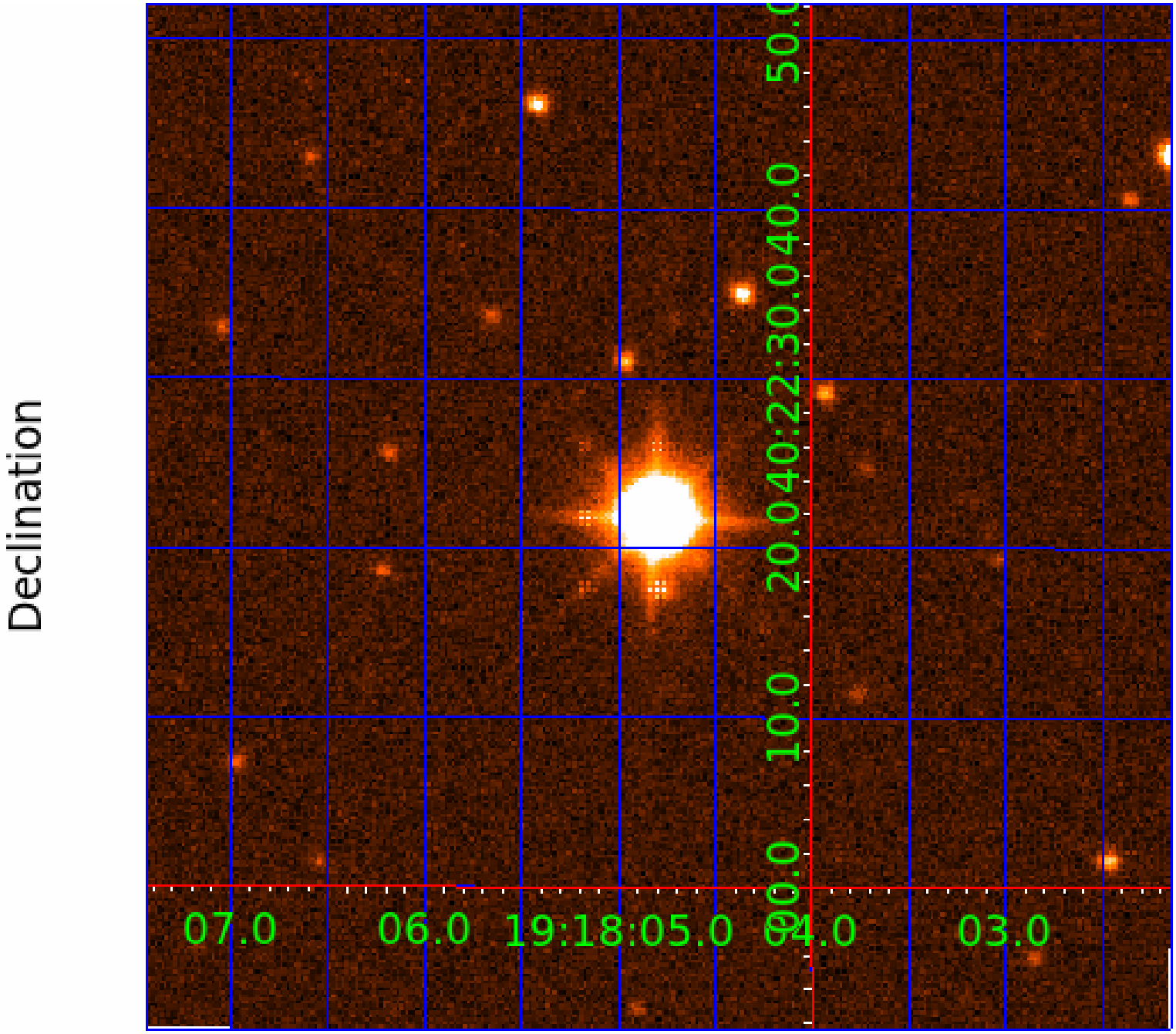


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image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06.0
19:18:05.0
04.0
03.0

KIC 005179328

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_\star$ ($R_\odot$)	$T_\star$ (K)	R_p ($R_\oplus$)	S_p ($S_\oplus$)
005179328-01	OBS	No	0.670370	131.764741	8.2	4.033	8.9	6.8	1.82	6762	0.60	21602.52
005179328-02	OBS	No	108.777871	185.898559	134.5	11.798	8.4	7.9	1.82	6762	2.36	24.41
005179328-04	OBS	No	50.596736	179.377582	7.5	0.919	9.0	0.3	1.82	6762	0.58	67.73
005179328-05	OBS	No	321.707316	141.046541	229.4	5.303	8.6	8.1	1.82	6762	3.00	5.75
005179328-06	OBS	No	102.672857	201.159806	177.8	2.224	8.2	8.7	1.82	6762	2.73	26.36
005179328-07	OBS	No	44.423528	165.932506	153.8	1.359	9.2	8.0	1.82	6762	2.58	80.56
005179328-08	OBS	No	31.414157	133.679706	116.3	2.102	8.4	9.1	1.82	6762	2.27	127.87
005179328-09	OBS	No	77.609623	148.121983	124.0	4.261	8.7	7.2	1.82	6762	2.30	38.29
005179328-10	OBS	No	125.588996	139.259222	156.4	9.832	8.1	8.6	1.82	6762	2.43	20.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005179328-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
005179328-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_SATURATED
005179328-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_SATURATED
005179328-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

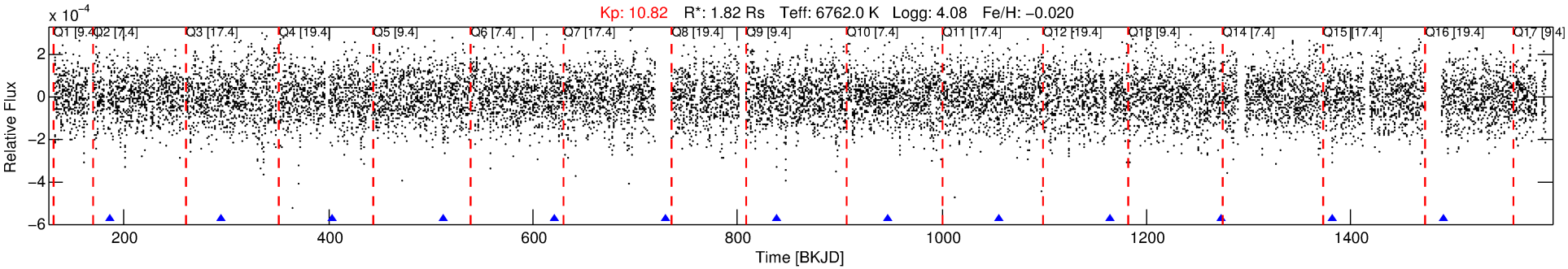
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

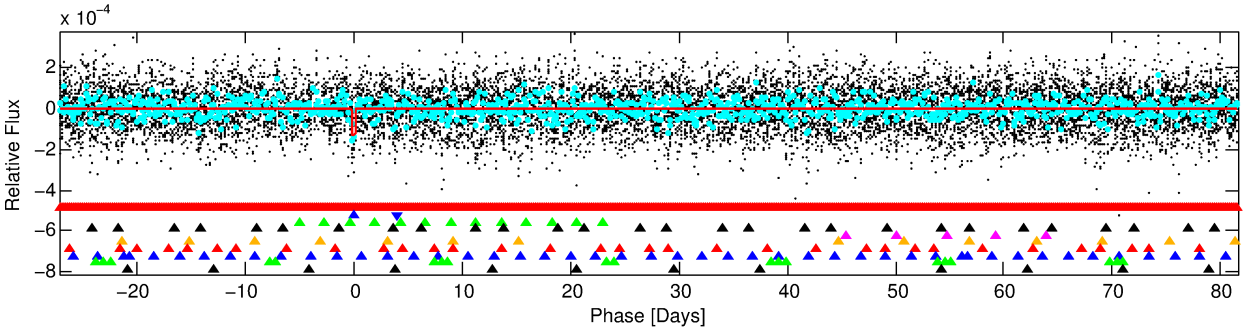
Ephemeris Match Information For 005179328-02

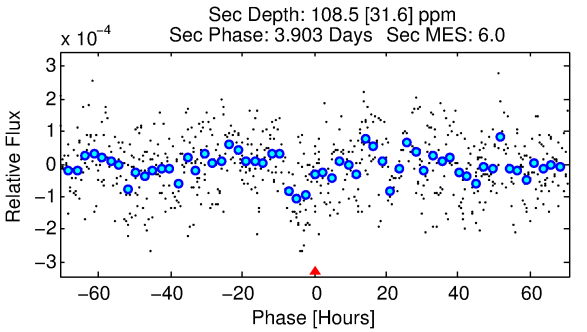
No Significant Match Found

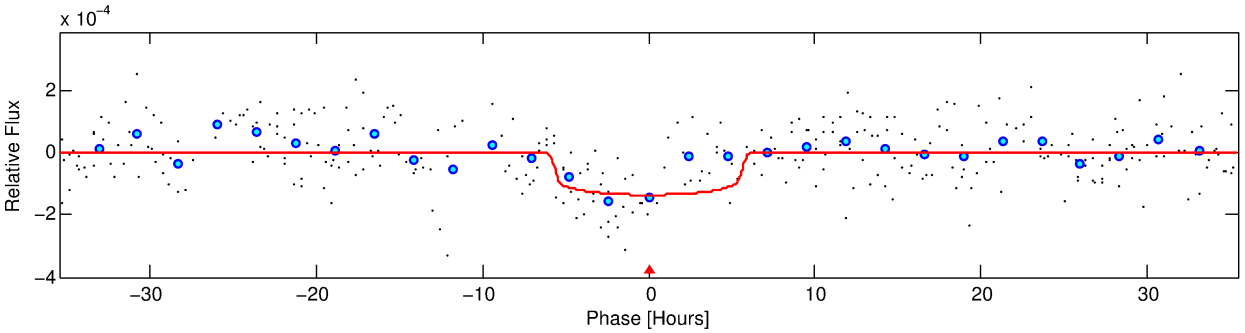
DV One-Page Summary

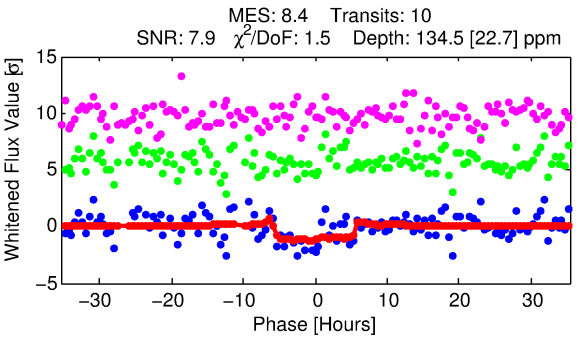
KIC: 5179328 Candidate: 2 of 10 Period: 108.778 d

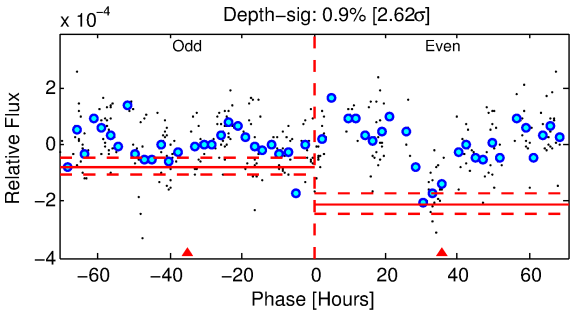


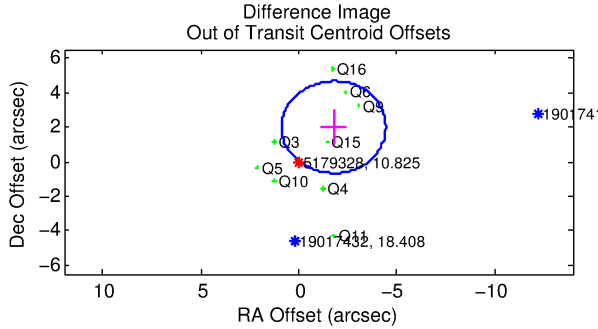












DV Fit Results:

Period = 108.77787 [0.00208] d
Epoch = 185.8986 [0.0228] BKJD
Rp/R* = 0.0119 [0.0053]
a/R* = 40.67 [103.97]
b = 0.83 [0.97]

Seff = 24.41 [6.28]
Teq = 567 [36] K
Rp = 2.36 [1.14] Re
a = 0.5036 [0.0838] AU

Ag = 2725.29 [2637.27] [1.03σ]
Teffp = 6331 [1481] K [3.89σ]

DV Diagnostic Results:

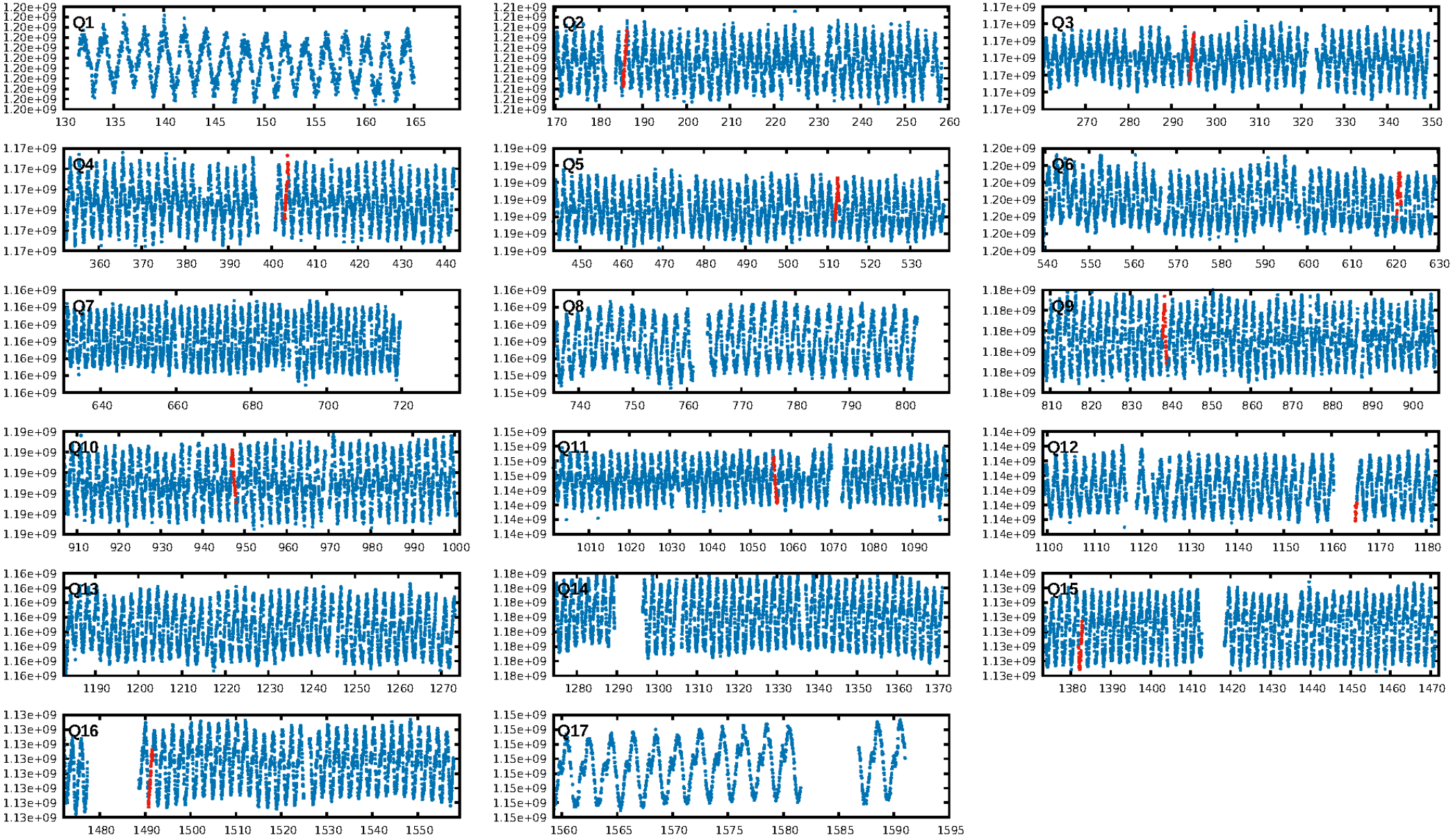
ShortPeriod−sig: 100.0% [12.20σ]
LongPeriod−sig: 100.0% [3.59σ]
ModelChiSquare2−sig: 0.2%
ModelChiSquareGof−sig: 100.0%
Bootstrap−pfa: N/A
RollingBand−fgt: 1.00 [10/10]
GhostDiagnostic−chr: 12.47

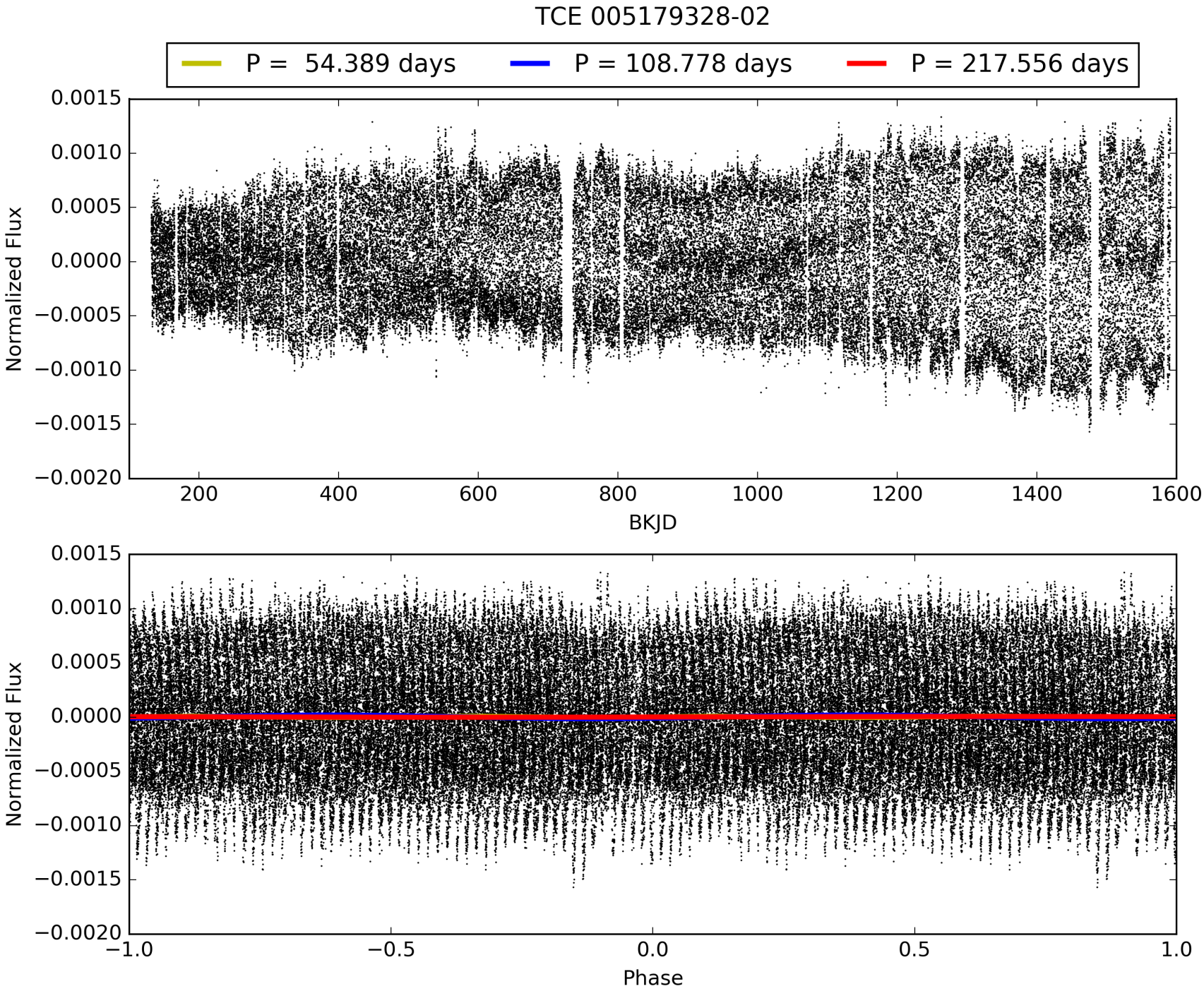
Centroid−sig: 1.4%
Centroid−so: 1.771 arcsec [1.74σ]
OotOffset−rm: 2.675 arcsec [3.01σ]
KicOffset−rm: 2.041 arcsec [2.14σ]
OotOffset−st: 2/3/2/2 [9]
KicOffset−st: 2/3/2/2 [9]
DiffImageQuality−fgm: 0.22 [2/9]
DiffImageOverlap−fno: 0.00 [0/10]

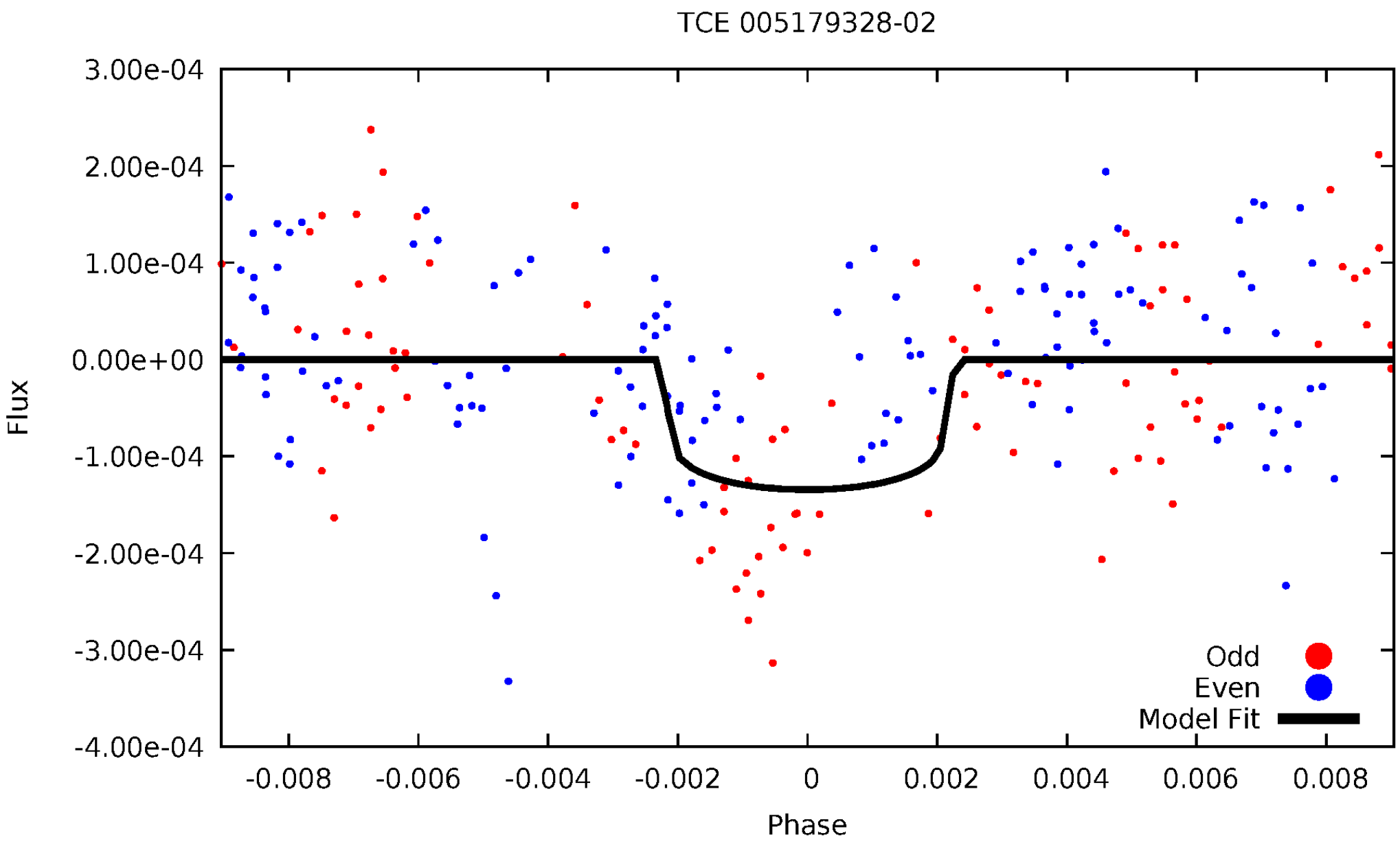
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 −− Date Generated: 01−Feb−2016 20:02:11 Z

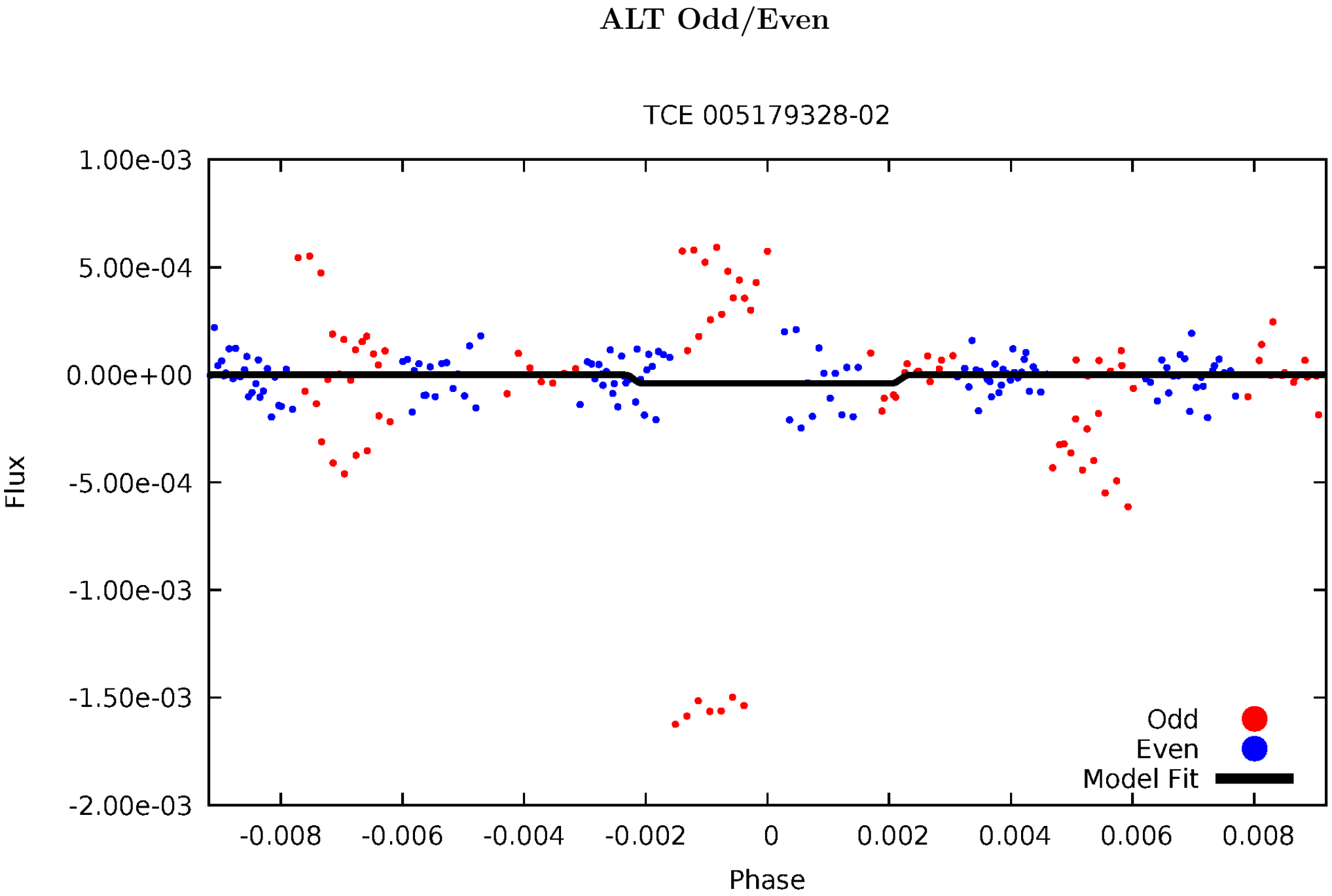
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005179328-02, PDC Light Curves

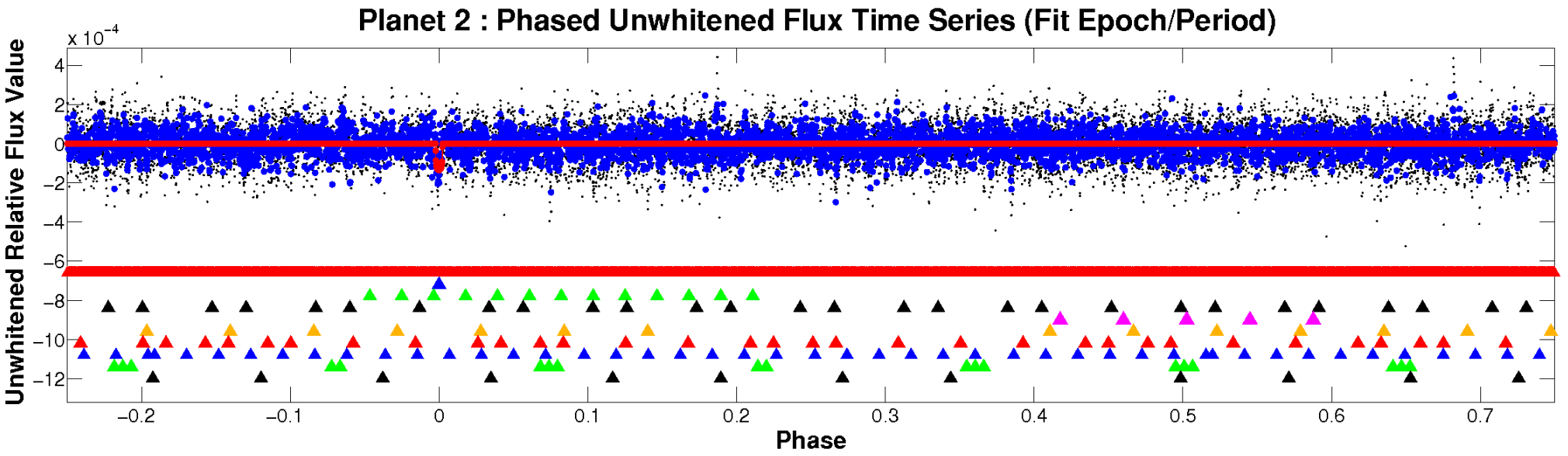


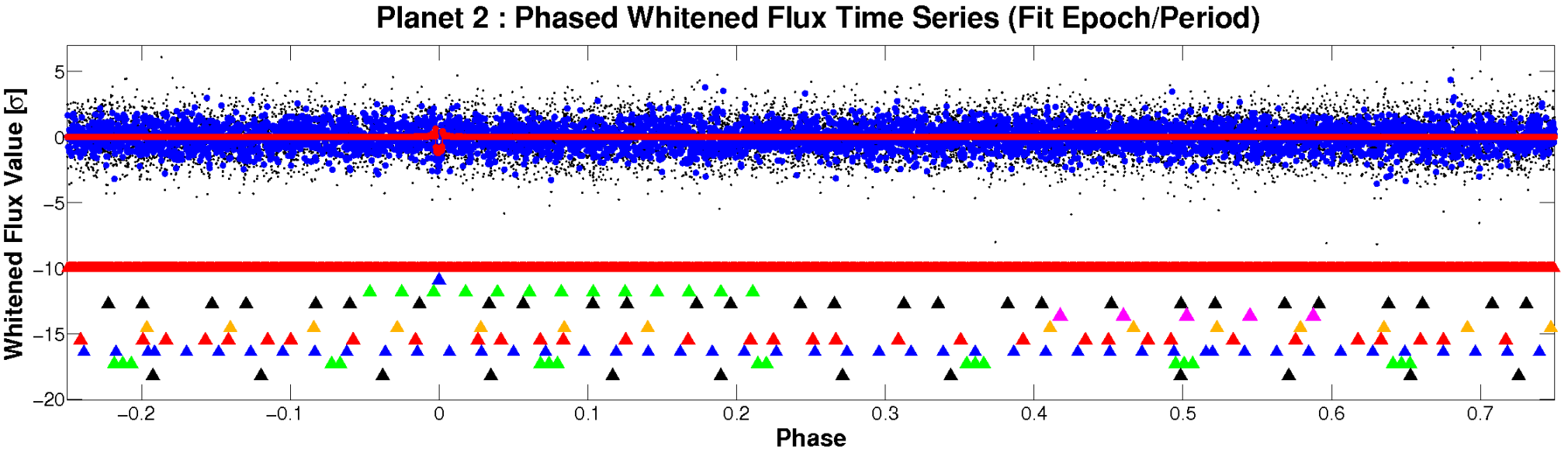

TCE 005179328-02
P = 54.389 days
P = 108.778 days
P = 217.556 days
Normalized Flux
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015
−0.0020
200
400
600
800
1000
1200
1400
1600
BKJD
Normalized Flux
−1.0
−0.5
0.0
0.5
1.0
Phase


DV Odd/Even
TCE 005179328-02
3.00e-04
2.00e-04
1.00e-04
0.00e+00
-1.00e-04
-2.00e-04
-3.00e-04
-4.00e-04
Flux
-0.008
-0.006
-0.004
-0.002
0
0.002
0.004
0.006
0.008
Phase
Odd
Even
Model Fit


ALT Odd/Even
TCE 005179328-02
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
-2.00e-03
Flux
-0.008
-0.006
-0.004
-0.002
0
0.002
0.004
0.006
0.008
Phase
Odd
Even
Model Fit

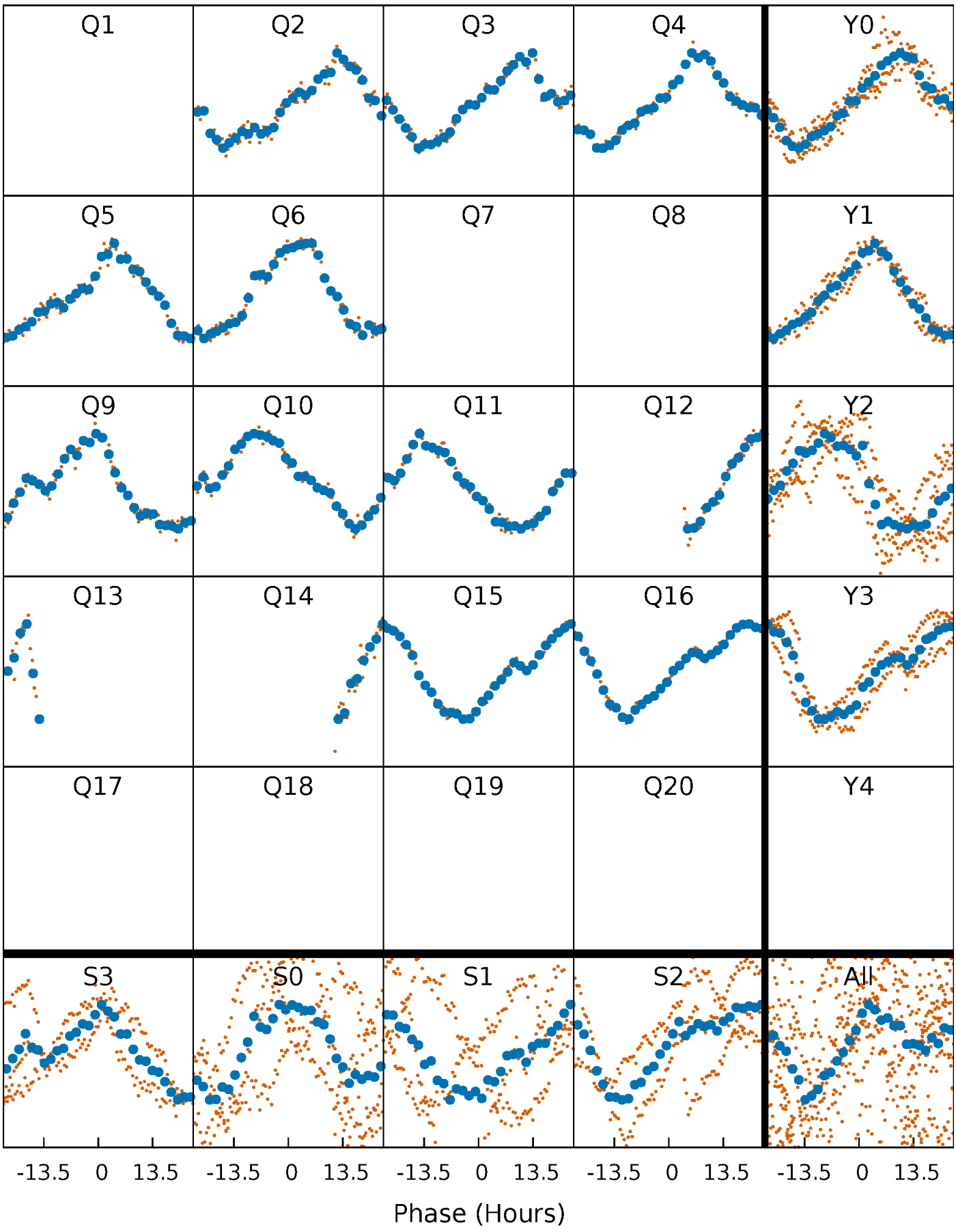
Non-Whitened Vs. Whitened Light Curve





PDC Quarter-Phased Transit Curves

TCE 005179328-02 P=108.777871 Days T_0=185.898559 (BKJD)



DV Quarter-Phased Transit Curves

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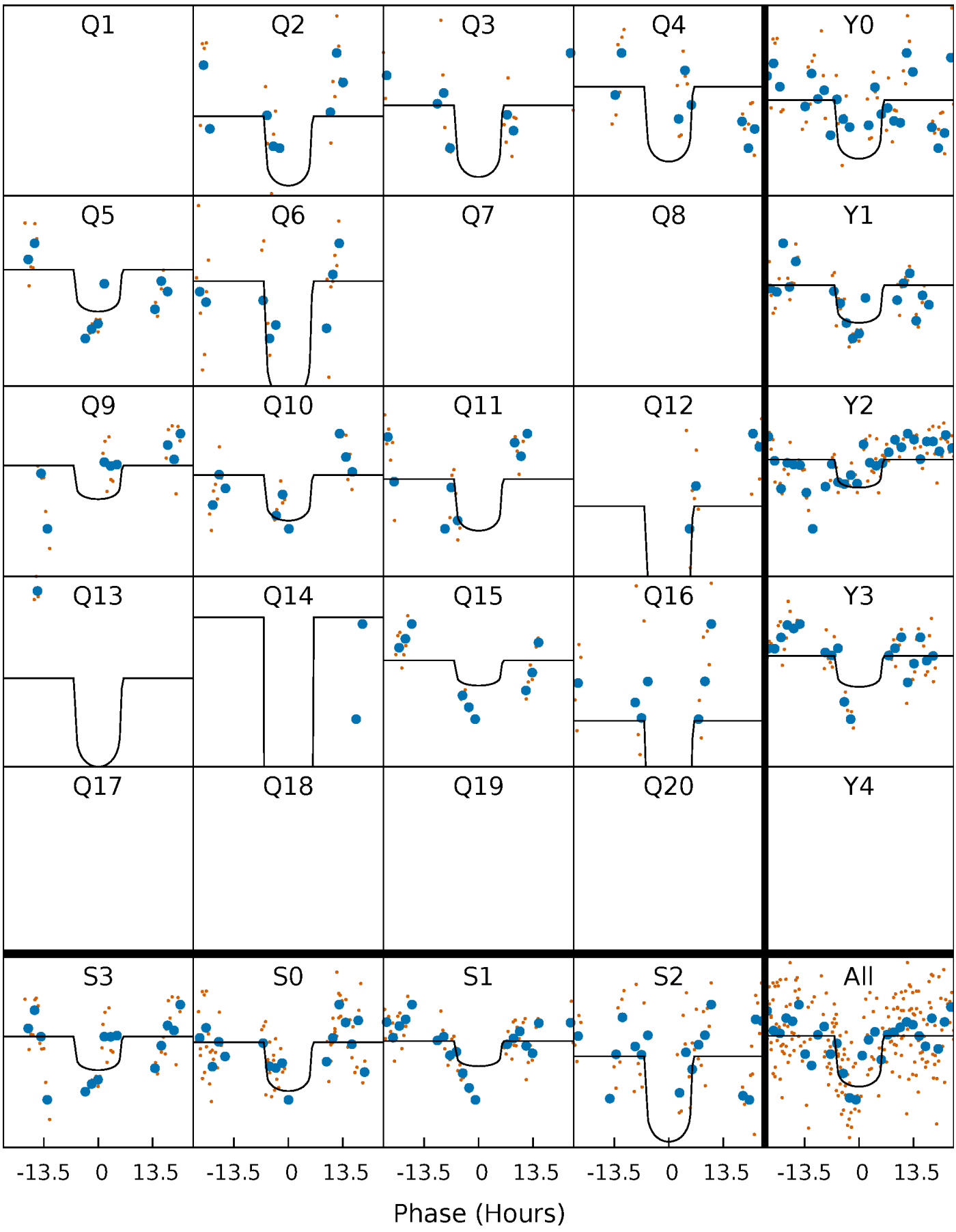
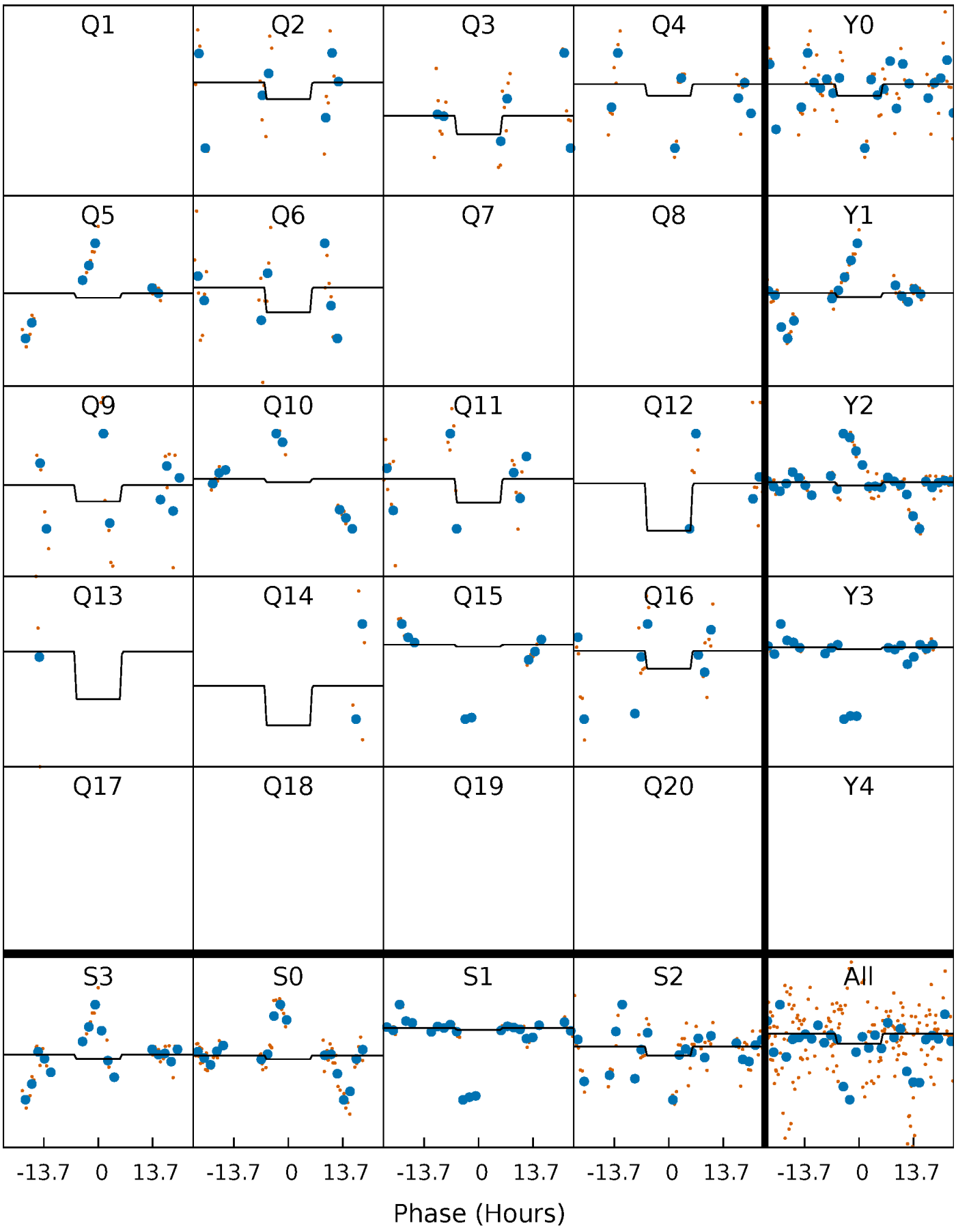


Alt. Detrend Quarter-Phased Transit Curves

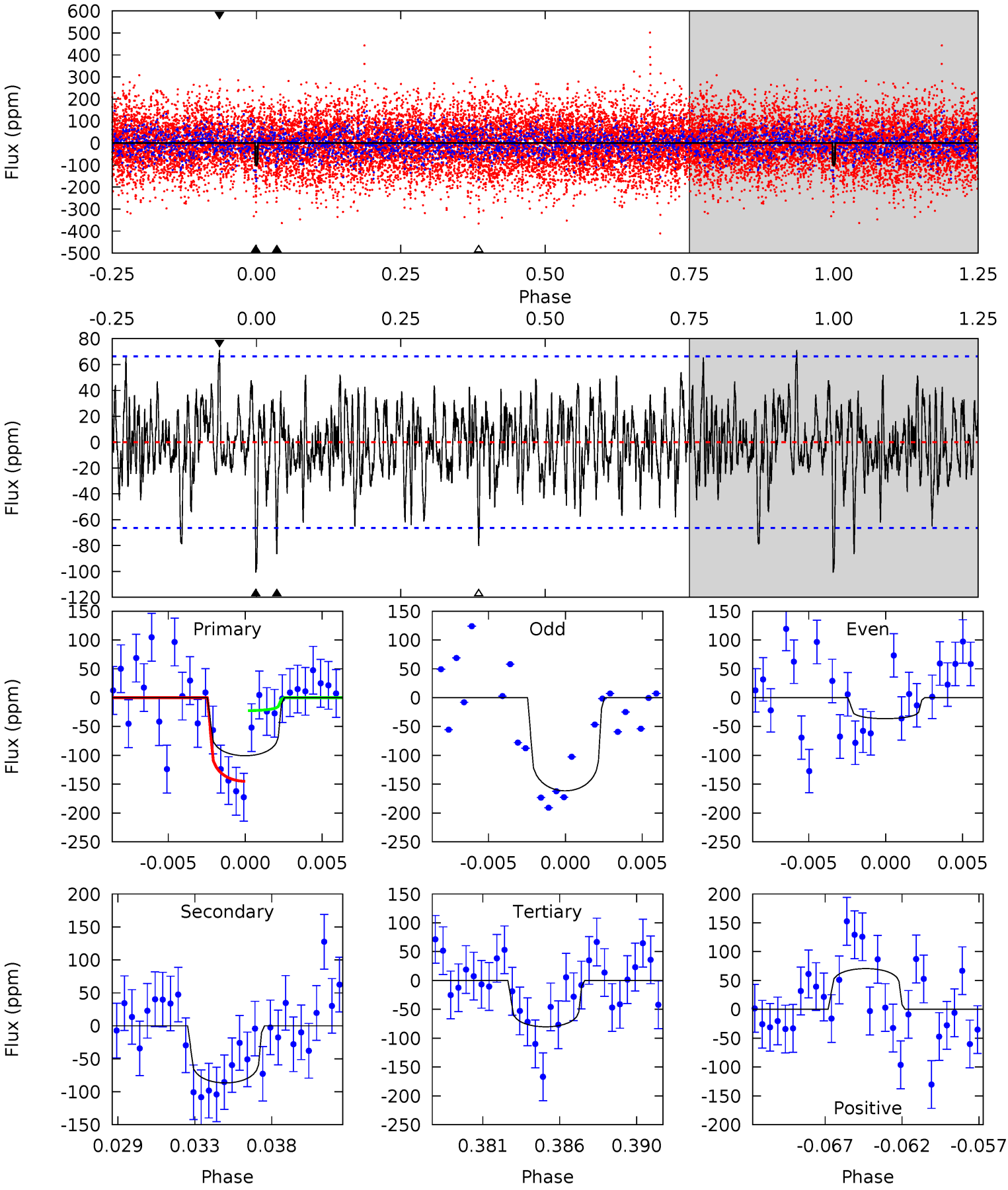
TCE 005179328-02 P=108.770760 Days T_0=185.960454 (BKJD)



DV Model-Shift Uniqueness Test

005179328-02, P = 108.777871 Days, E = 77.120688 Days

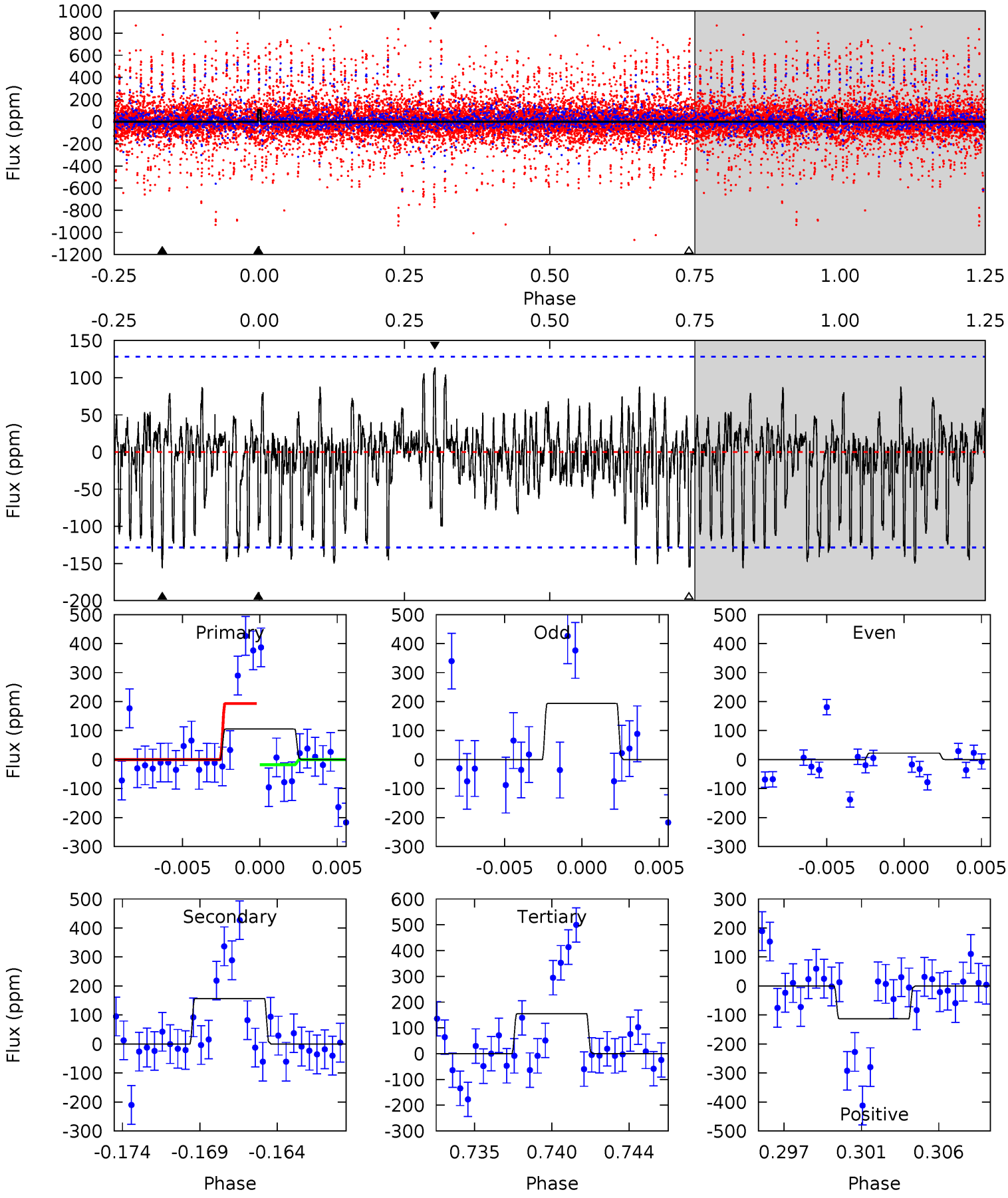
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.84	6.74	6.25	5.50	5.17	2.82	1.77	1.59	2.35	0.49	1.24	4.86	1.14	0.41	4.56



Alt Model-Shift Uniqueness Test

005179328-02, P = 108.770760 Days, E = 77.189694 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.24	6.30	6.26	4.56	5.17	2.84	1.74	-2.01	-0.32	0.05	1.74	3.08	-92.9	0.42	3.56



Stellar Parameters For KIC 005179328

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6762^{+81}_{-81}	$4.077^{+0.143}_{-0.117}$	$-0.020^{+0.150}_{-0.150}$	$1.818^{+0.307}_{-0.341}$	$1.444^{+0.115}_{-0.115}$	$0.338^{+0.242}_{-0.122}$
	+1%/-1%	+4%/-3%	+750%/-750%	+17%/-19%	+8%/-8%	+72%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005179328-02 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-87±13	$2.41^{+1.05}_{-1.07}$	792^{+39}_{-36}	5892^{+2241}_{-892}	2016^{+4732}_{-1041}
Alt.	-156±25	$1.39^{+1.09}_{-0.85}$	793^{+36}_{-39}	9608^{+13485}_{-2842}	11090^{+62702}_{-7735}

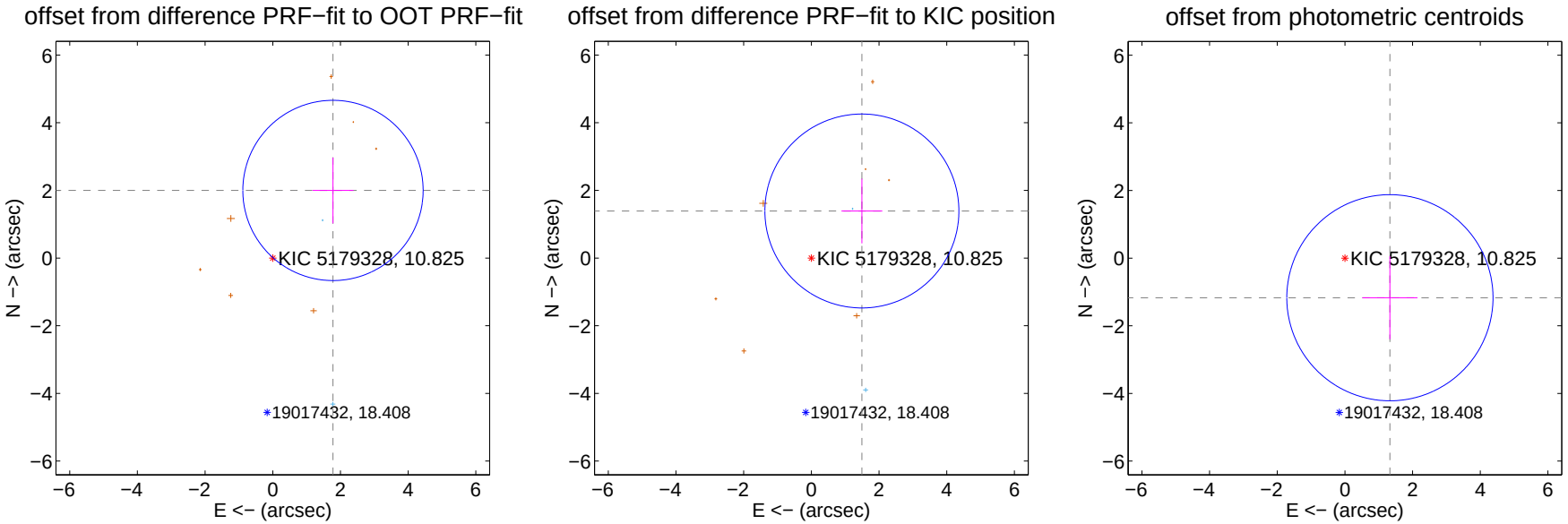
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

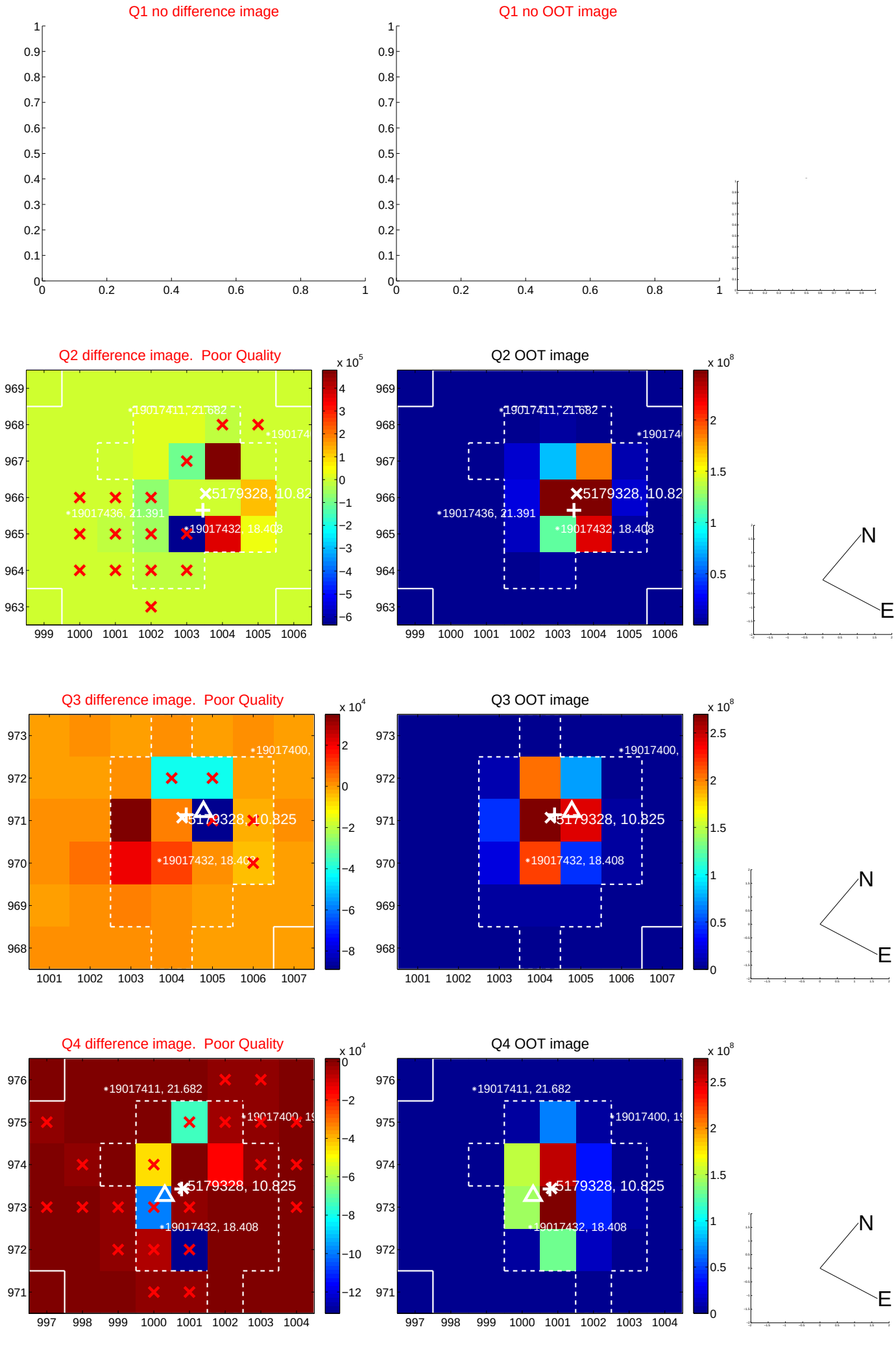
Supplemental centroid analysis for 005179328-02. Kepler magnitude: 10.82. Transit SNR 7.86
There are 2 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.675 ± 0.888	3.01	-1.779 ± 0.605	1.999 ± 0.972
PRF-fit source offset from KIC position	2.041 ± 0.955	2.14	-1.493 ± 0.603	1.391 ± 0.955
photometric centroid source offset	1.77 ± 1.02	1.74	-1.33 ± 0.82	-1.17 ± 1.23

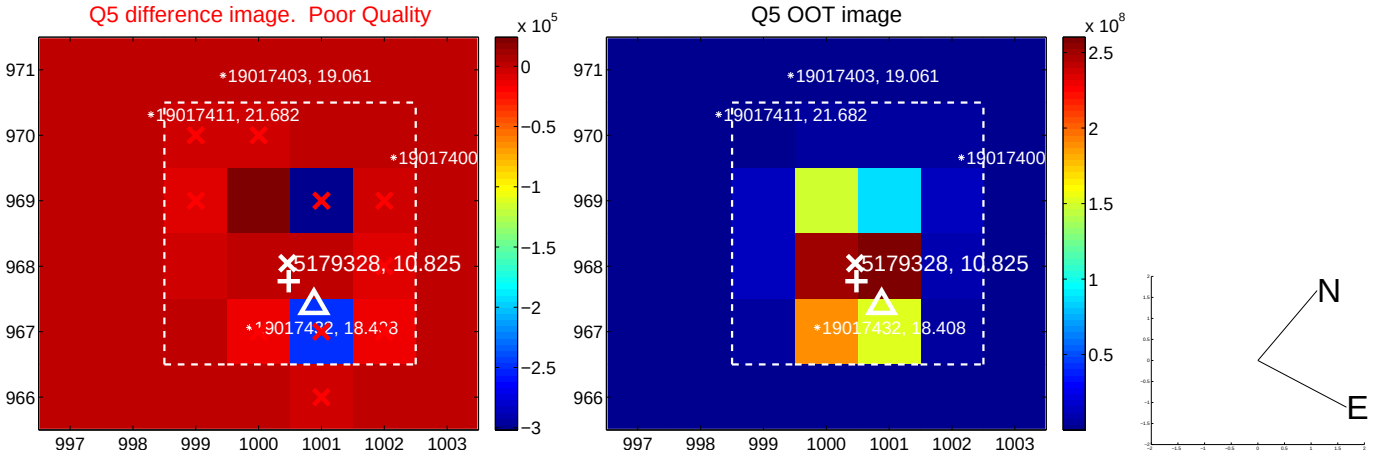


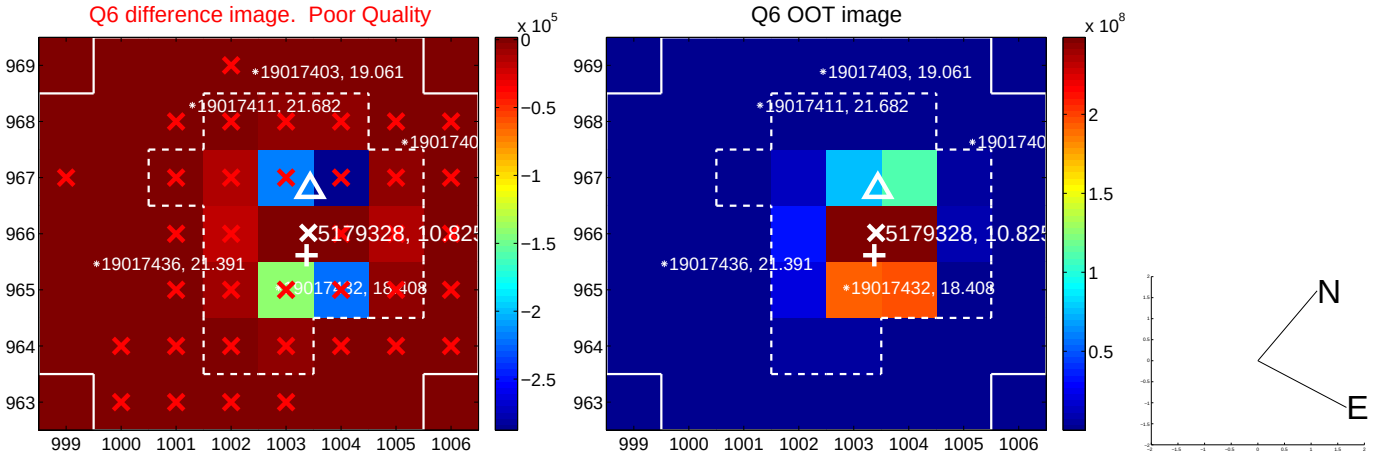
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs $> 15,000,000$ are from the UKIRT catalog.

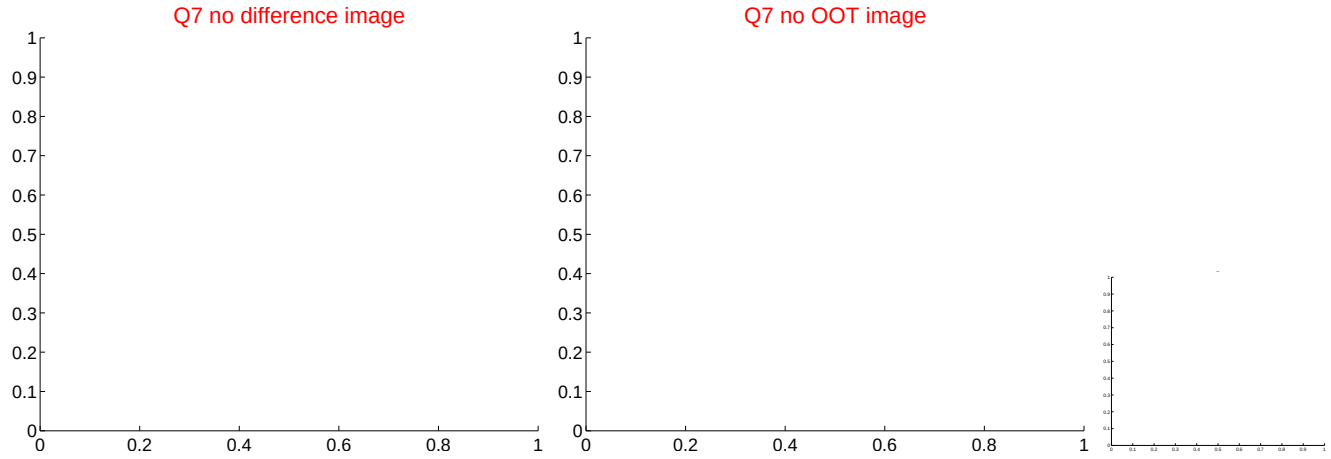
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

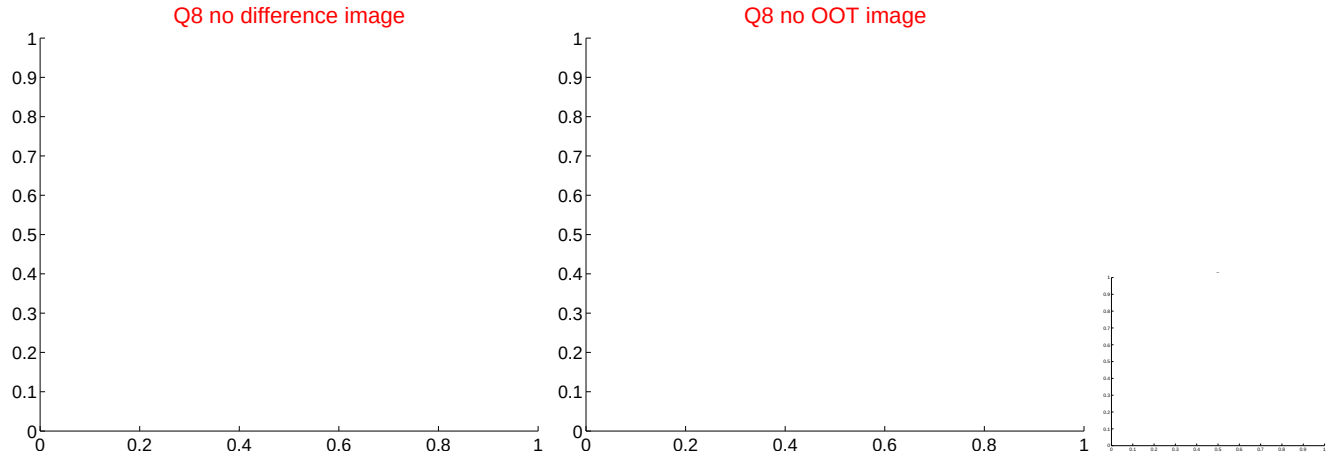


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

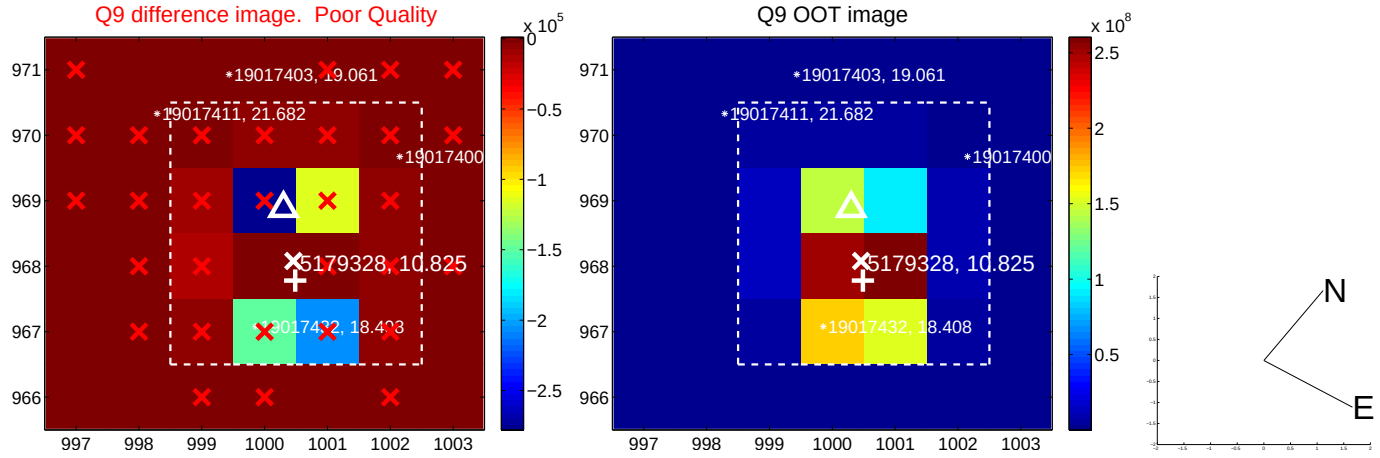


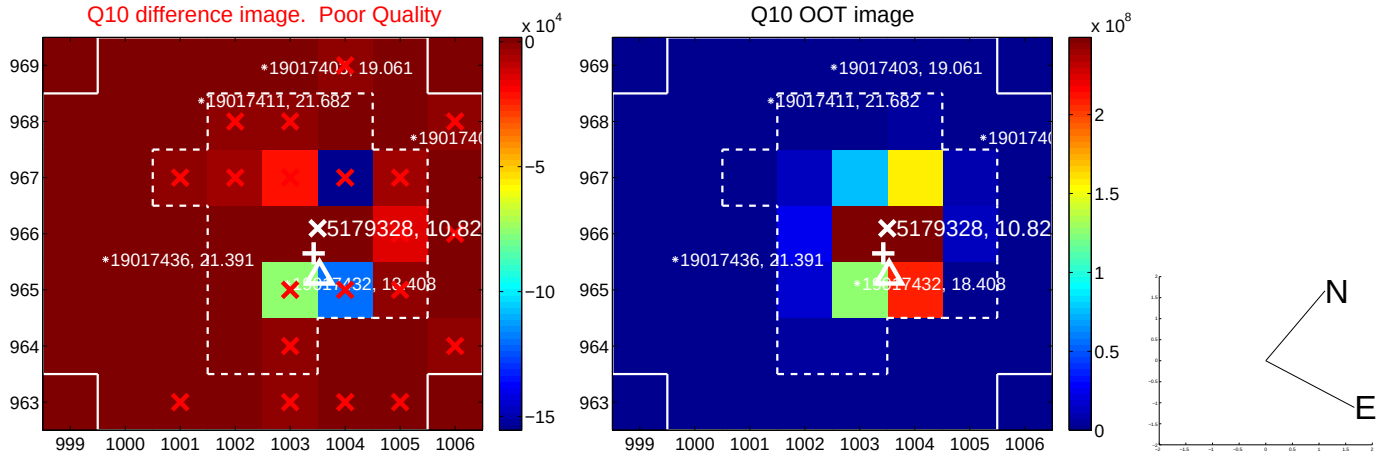


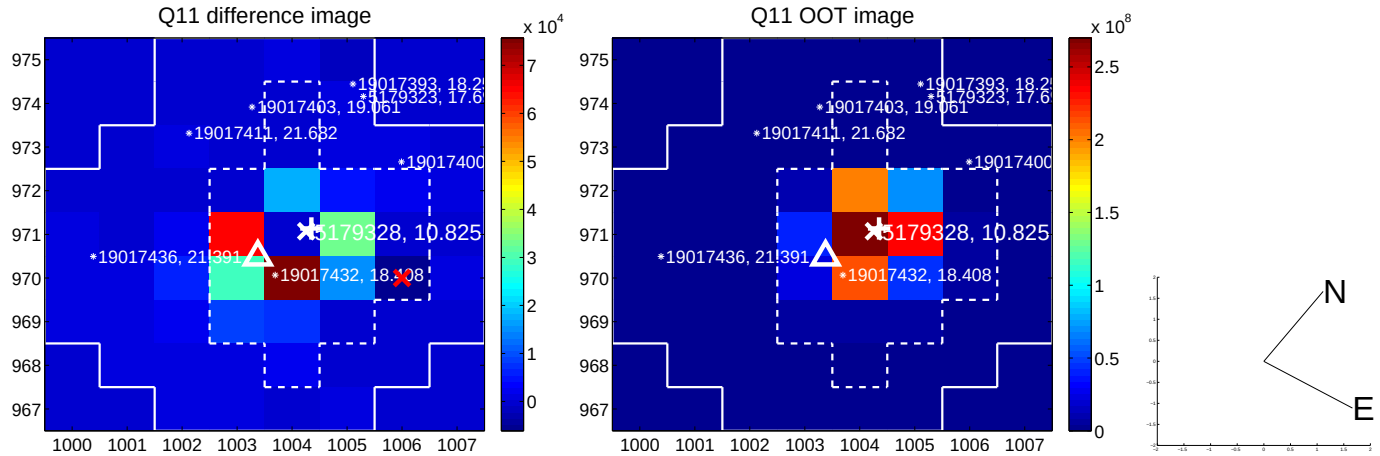


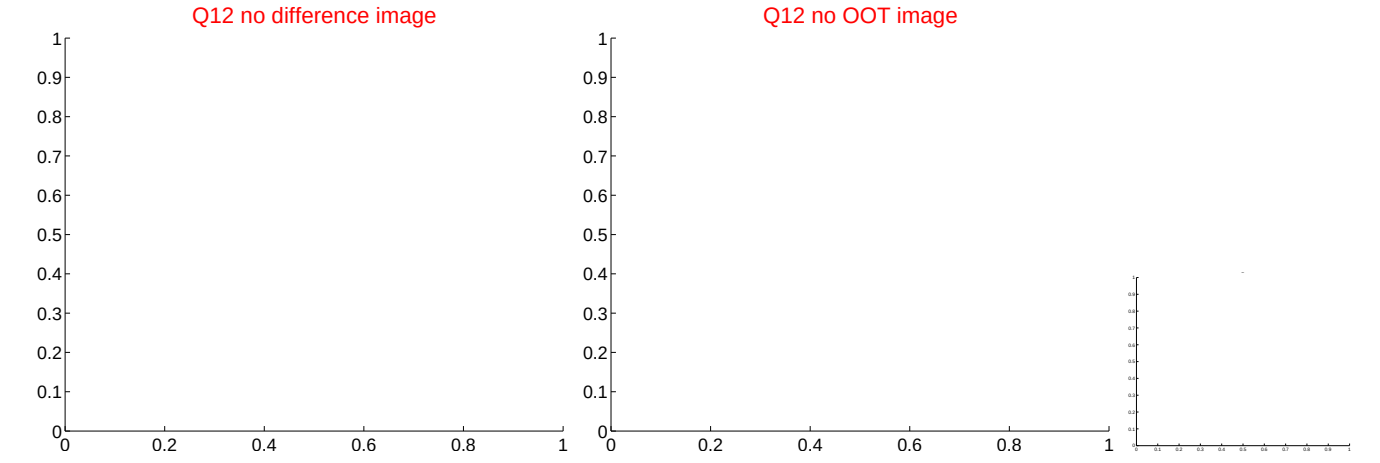


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

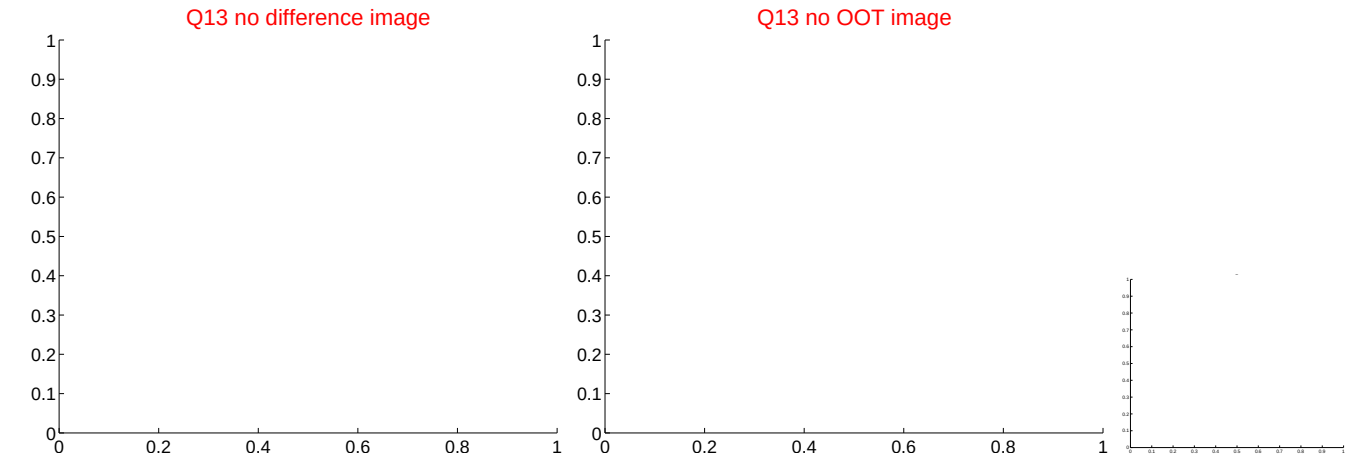


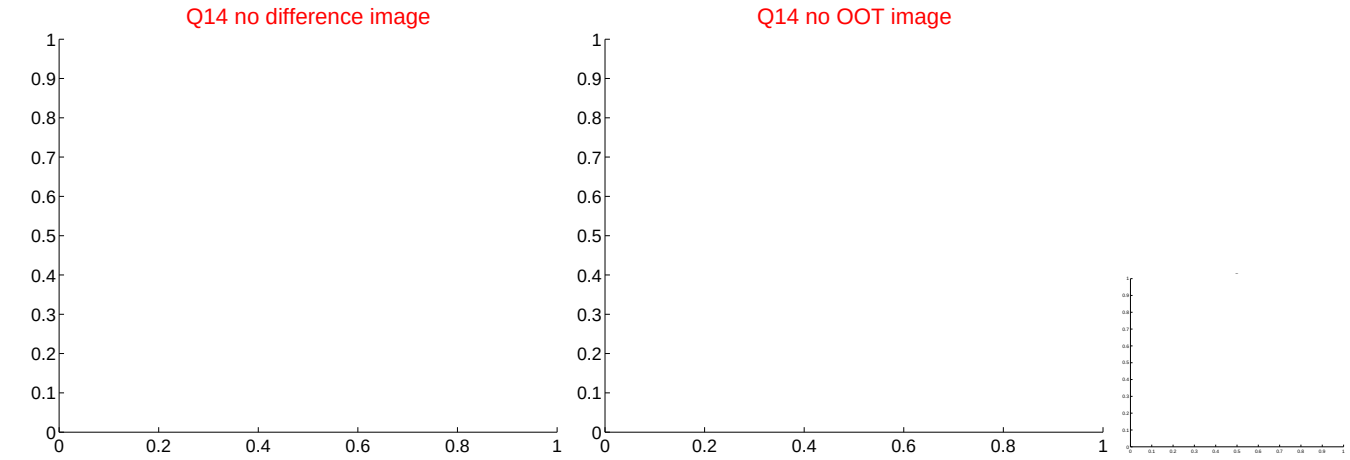


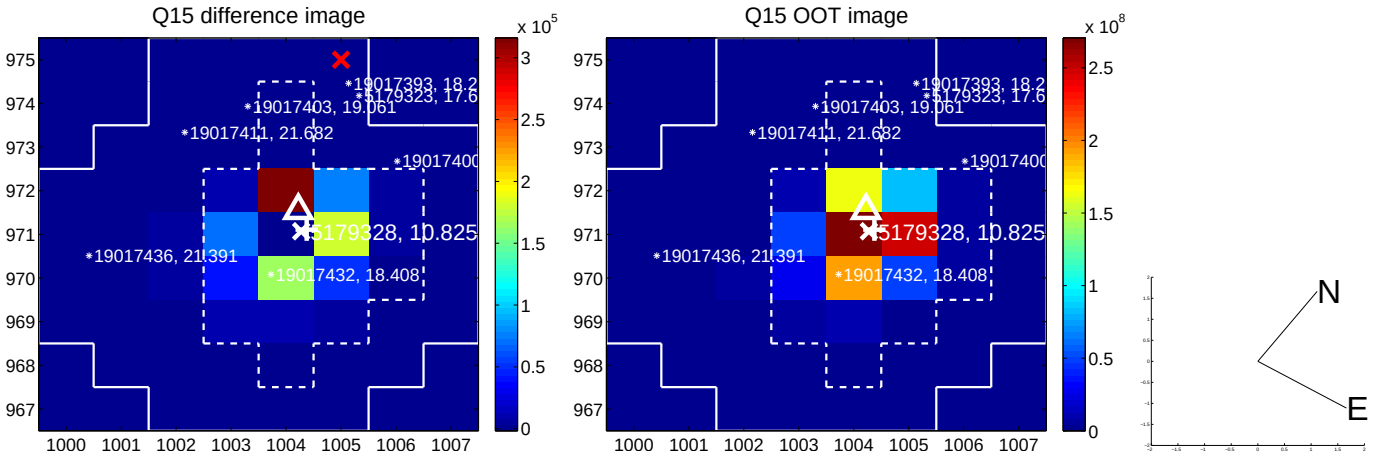


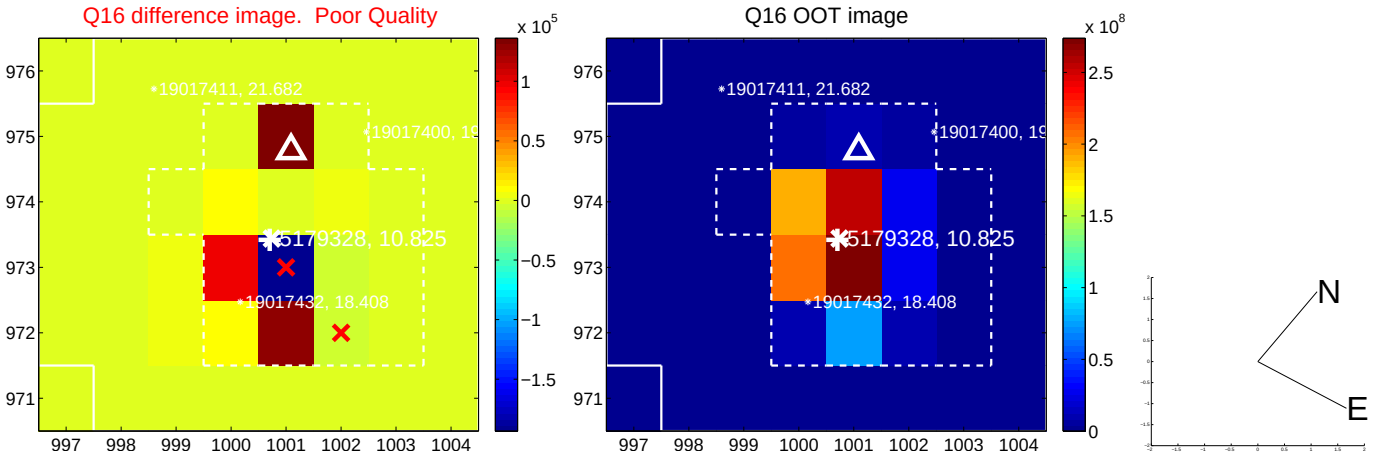


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

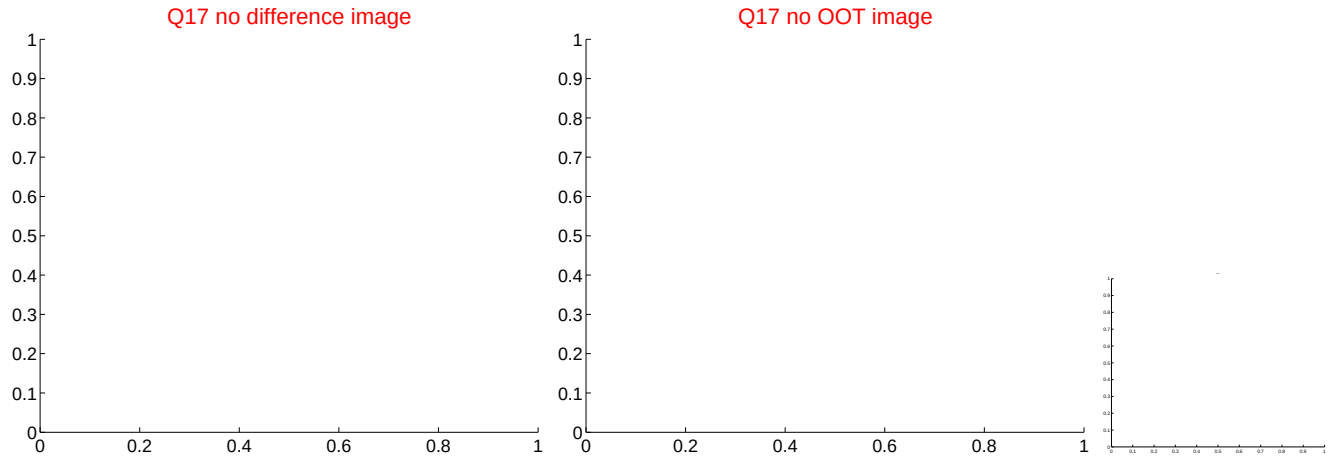


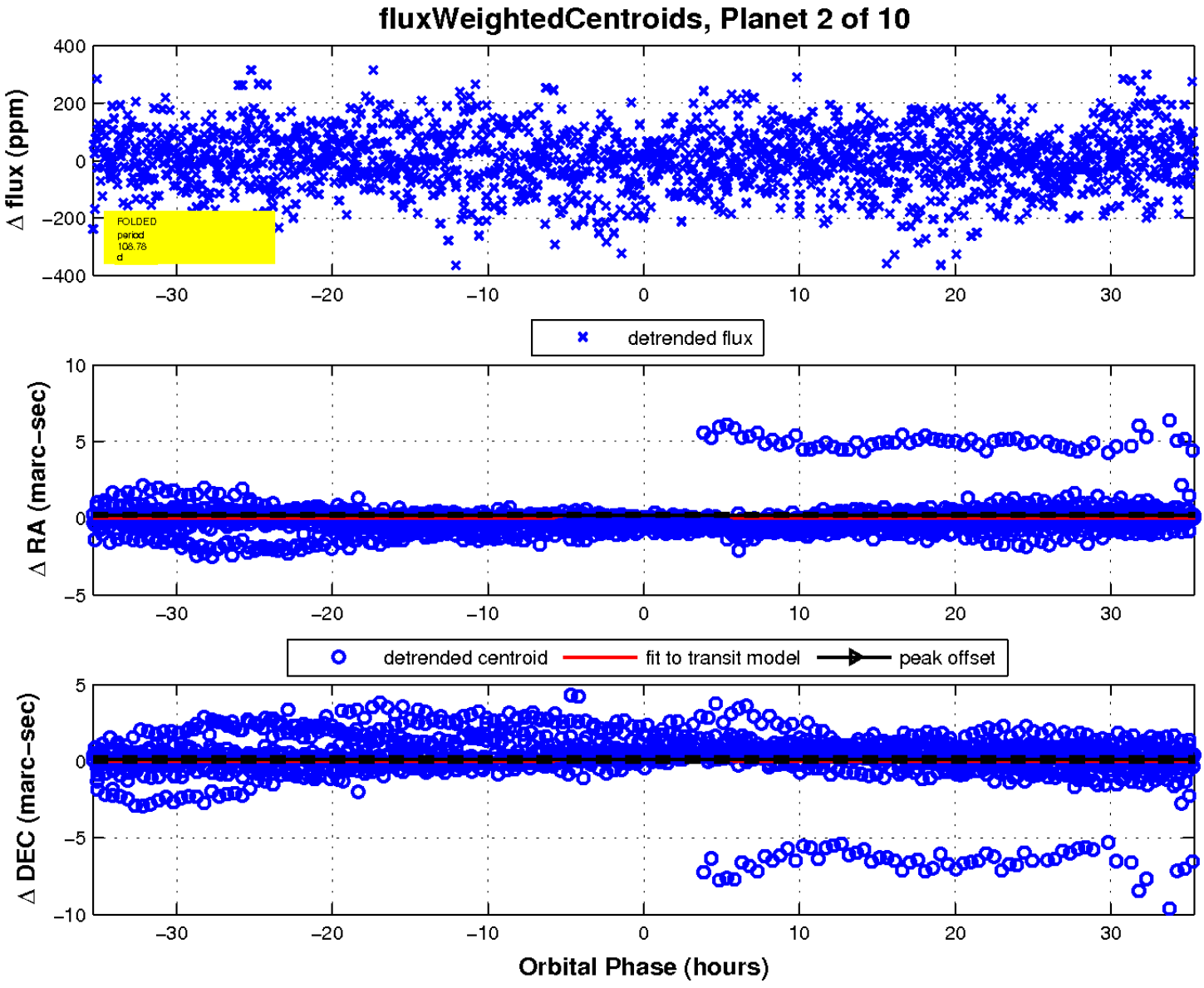




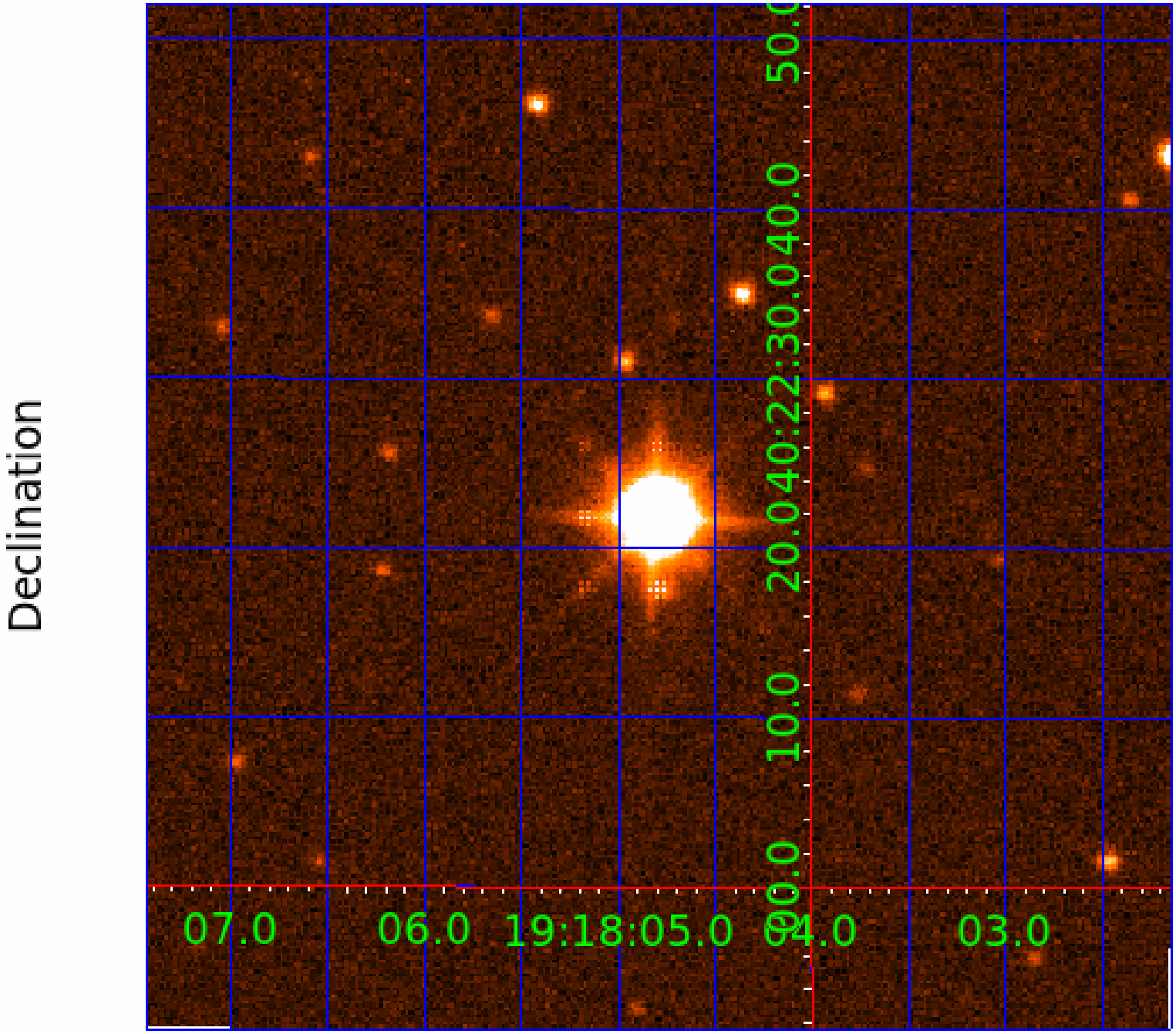


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image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07.0
06.0
19:18:05.0
04.0
03.0

KIC 005179328

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_\star$ ($R_\odot$)	$T_\star$ (K)	R_p ($R_\oplus$)	S_p ($S_\oplus$)
005179328-01	OBS	No	0.670370	131.764741	8.2	4.033	8.9	6.8	1.82	6762	0.60	21602.52
005179328-02	OBS	No	108.777871	185.898559	134.5	11.798	8.4	7.9	1.82	6762	2.36	24.41
005179328-04	OBS	No	50.596736	179.377582	7.5	0.919	9.0	0.3	1.82	6762	0.58	67.73
005179328-05	OBS	No	321.707316	141.046541	229.4	5.303	8.6	8.1	1.82	6762	3.00	5.75
005179328-06	OBS	No	102.672857	201.159806	177.8	2.224	8.2	8.7	1.82	6762	2.73	26.36
005179328-07	OBS	No	44.423528	165.932506	153.8	1.359	9.2	8.0	1.82	6762	2.58	80.56
005179328-08	OBS	No	31.414157	133.679706	116.3	2.102	8.4	9.1	1.82	6762	2.27	127.87
005179328-09	OBS	No	77.609623	148.121983	124.0	4.261	8.7	7.2	1.82	6762	2.30	38.29
005179328-10	OBS	No	125.588996	139.259222	156.4	9.832	8.1	8.6	1.82	6762	2.43	20.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005179328-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
005179328-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_SATURATED
005179328-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_SATURATED
005179328-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

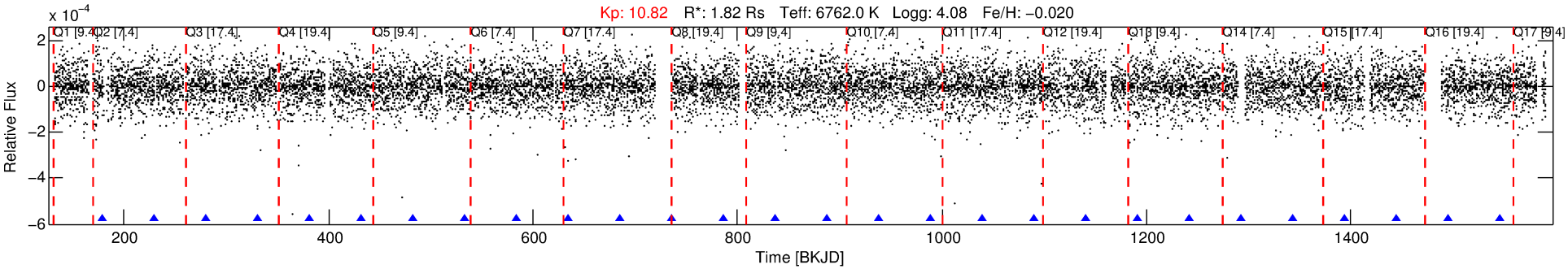
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

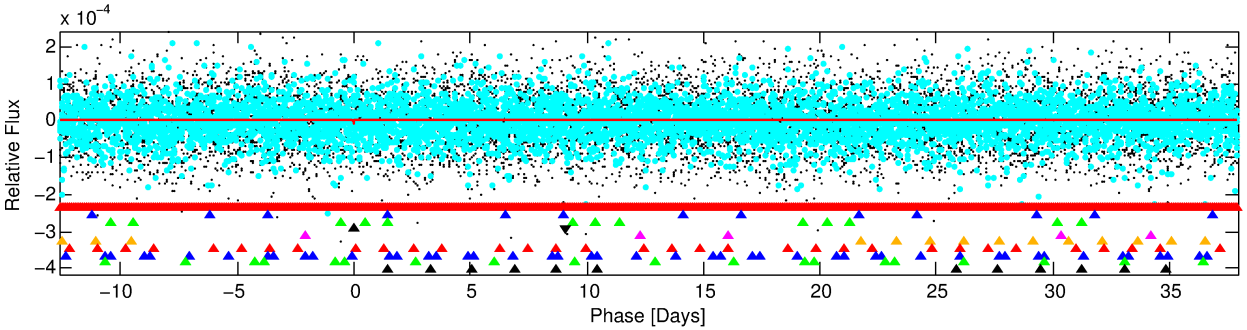
Ephemeris Match Information For 005179328-04

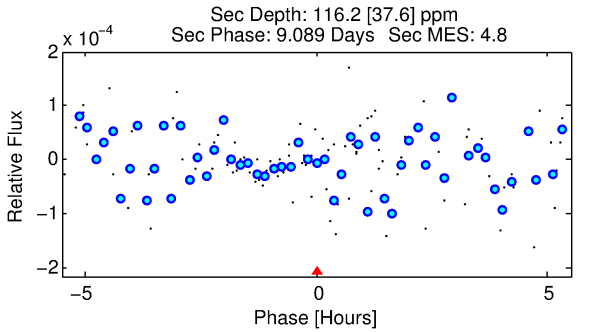
No Significant Match Found

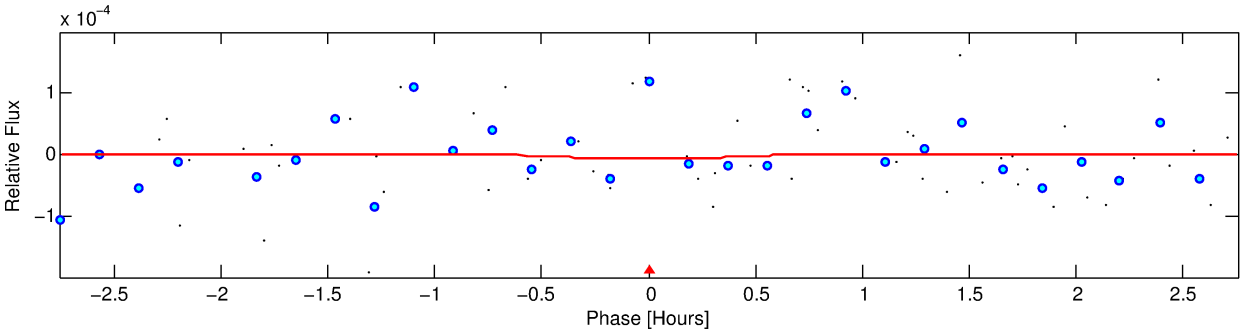
DV One-Page Summary

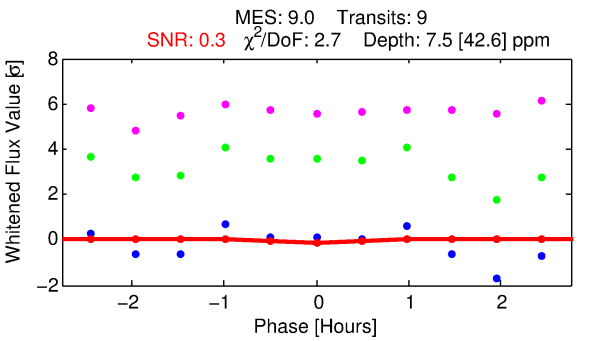
KIC: 5179328 Candidate: 4 of 10 Period: 50.597 d

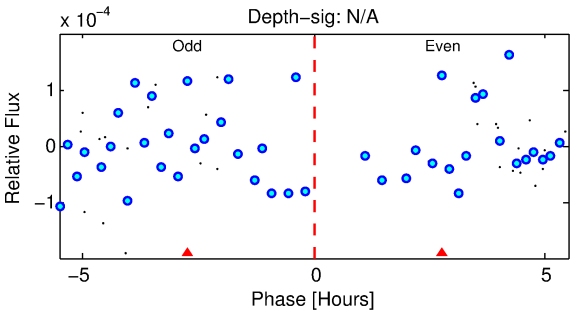


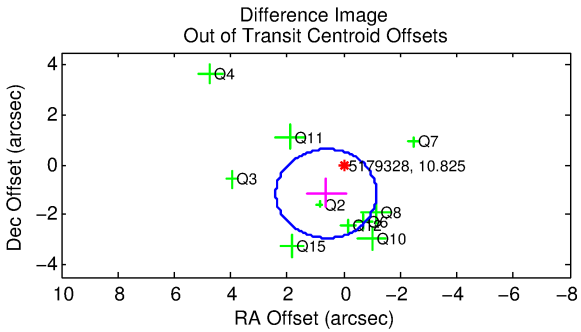












DV Fit Results:

Period = 50.59674 [0.00881] d
Epoch = 179.3776 [0.1407] BKJD
Rp/R* = 0.0029 [0.0251]
a/R* = 186.21 [9617.57]
b = 0.90 [11.24]

Seff = 67.73 [17.41]
Teq = 732 [47] K
Rp = 0.58 [4.97] Re
a = 0.3023 [0.0503] AU

Ag = 17166.41 [292594.18] [0.06σ]
Teffp = 12946 [55158] K [0.22σ]

DV Diagnostic Results:

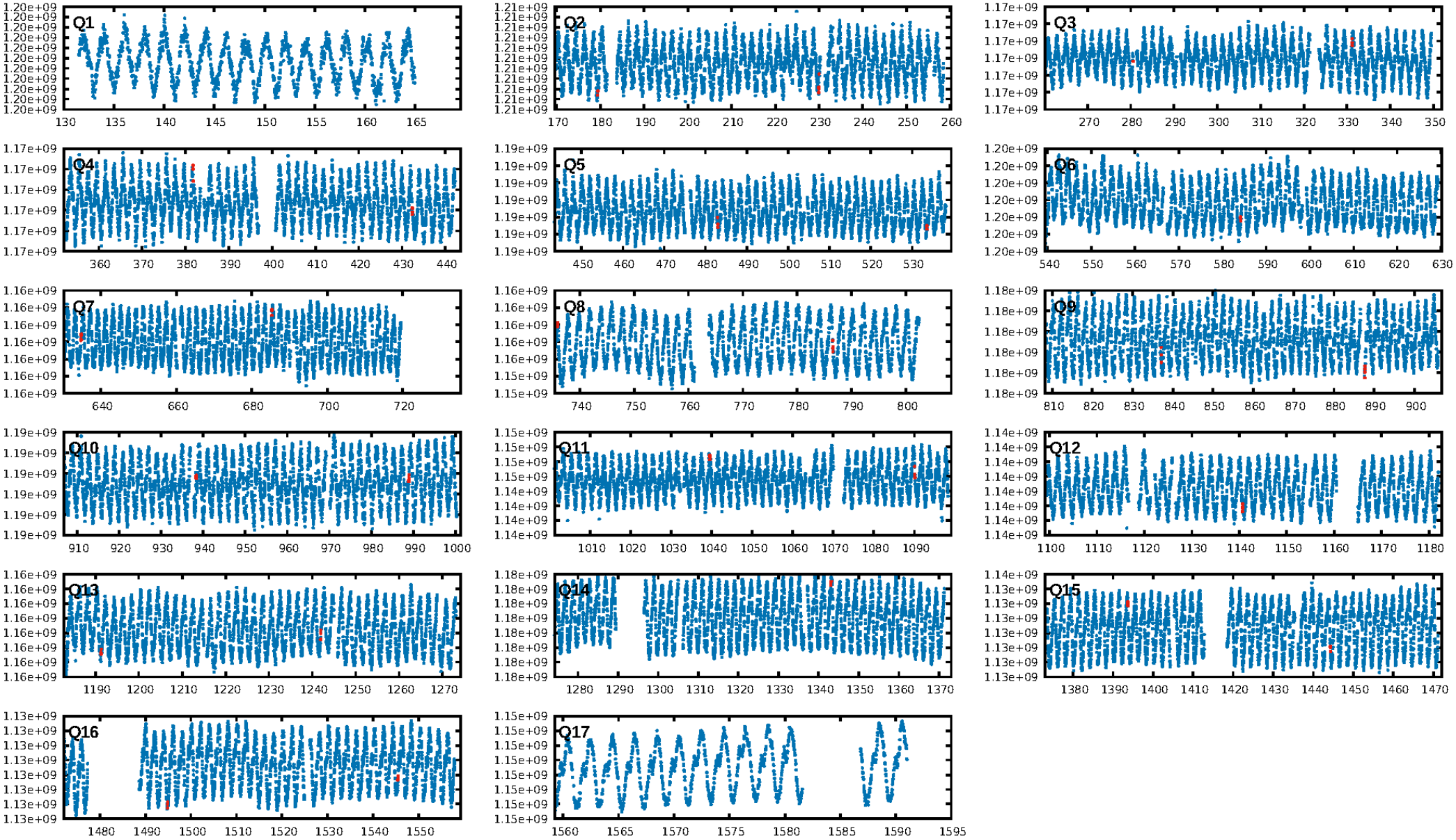
ShortPeriod−sig: 100.0% [90.32σ]
LongPeriod−sig: 100.0% [148.72σ]
ModelChiSquare2−sig: 9.6%
ModelChiSquareGof−sig: 20.7%
Bootstrap−pfa: N/A
RollingBand−fgt: 1.00 [9/9]
GhostDiagnostic−chr: 0.7641

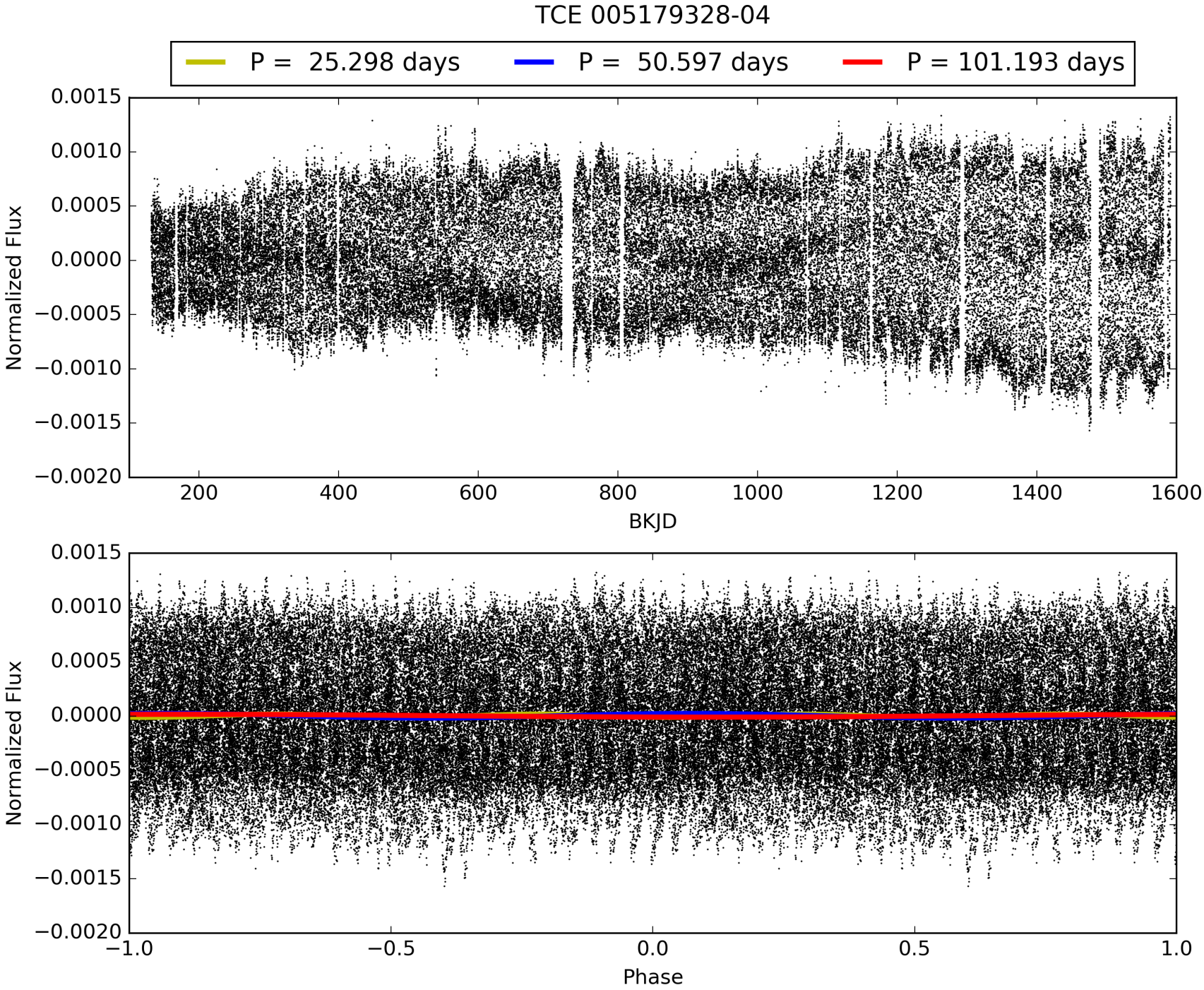
Centroid−sig: 94.6%
Centroid−so: 2.475 arcsec [0.16σ]
OotOffset−rm: 1.315 arcsec [2.22σ]
KicOffset−rm: 2.329 arcsec [3.06σ]
OotOffset−st: 3/4/3/0 [10]
KicOffset−st: 3/4/3/0 [10]
DiffImageQuality−fgm: 0.40 [4/10]
DiffImageOverlap−fno: 0.14 [2/14]

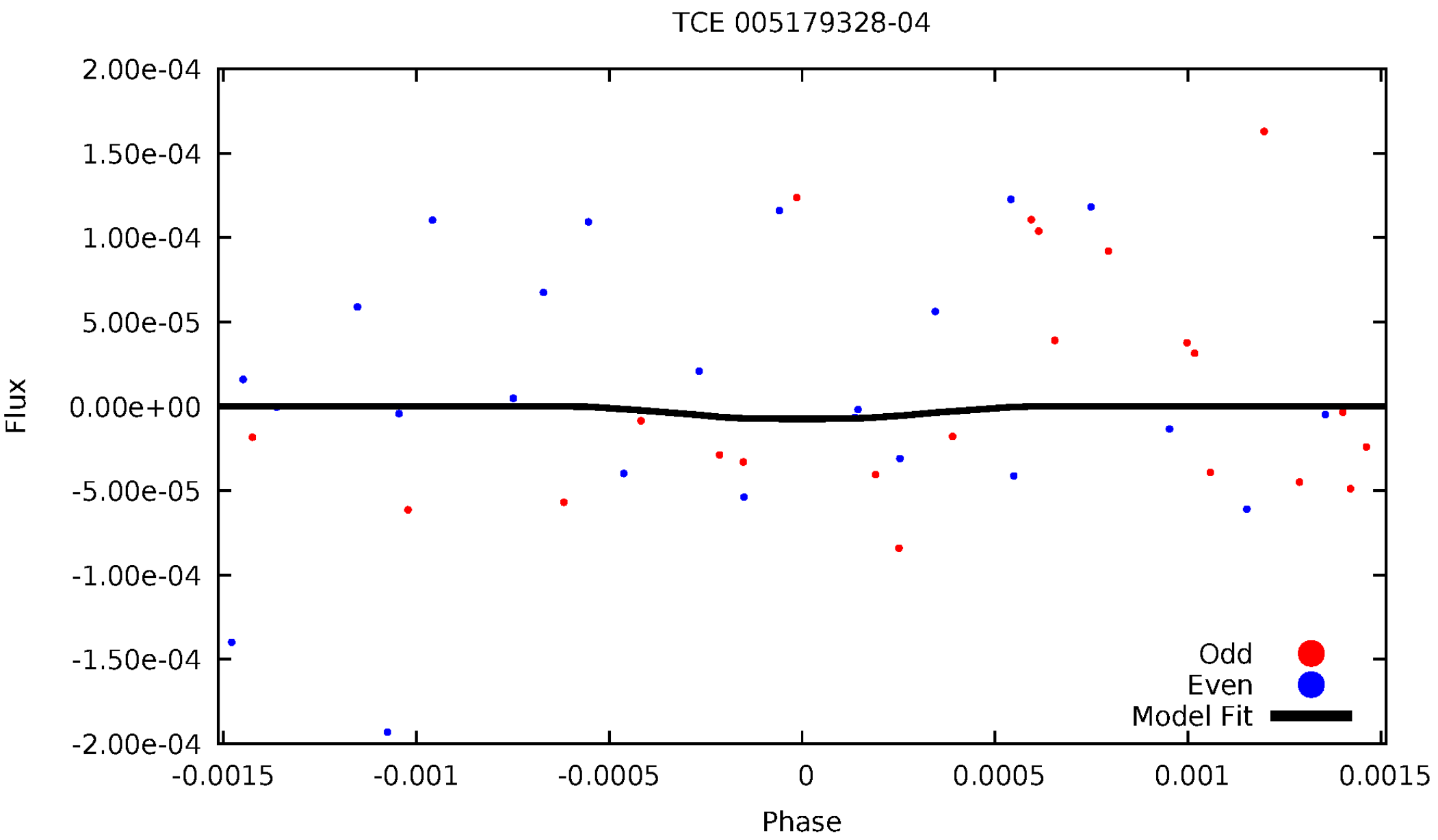
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 −− Date Generated: 01−Feb−2016 20:02:20 Z

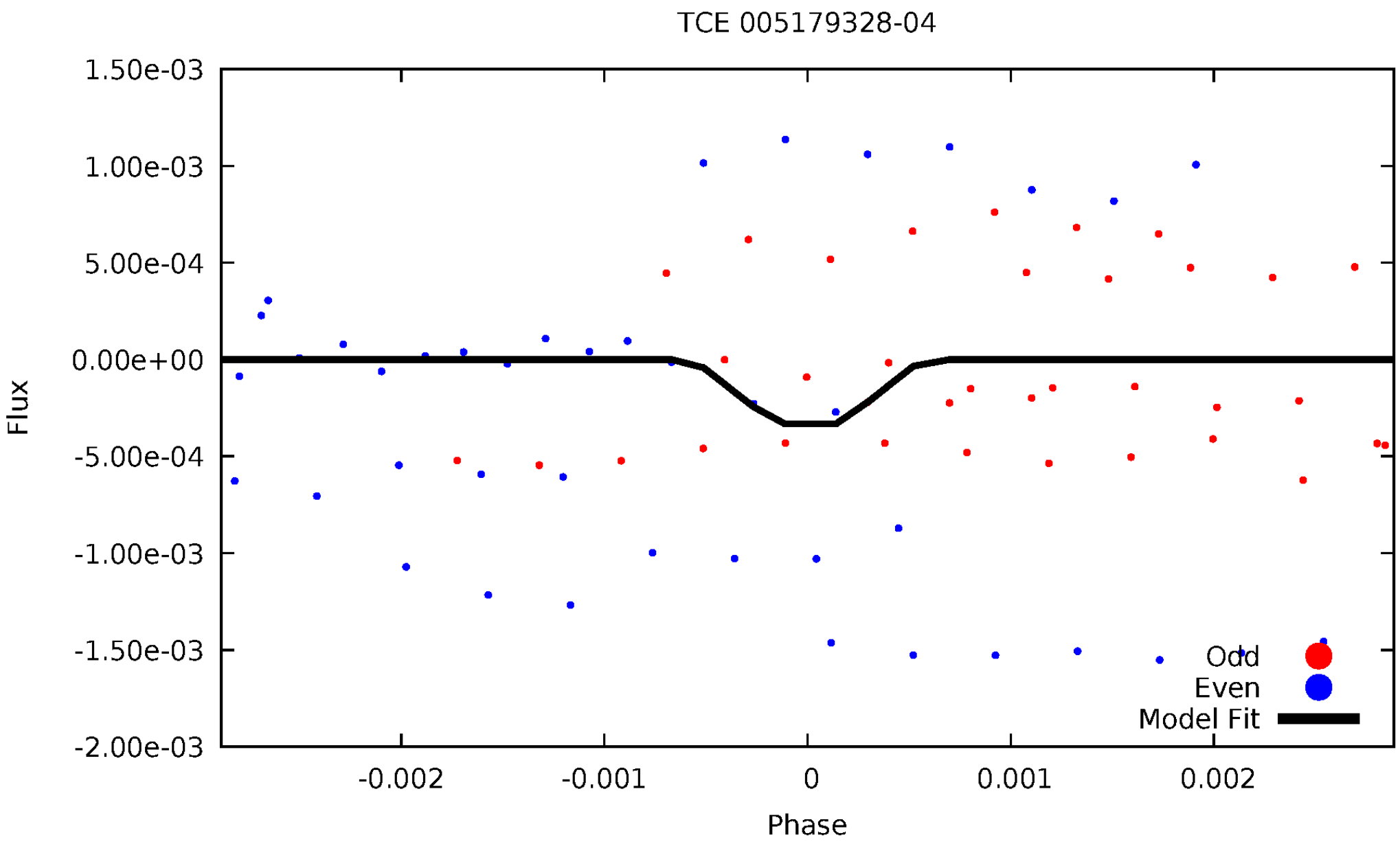
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005179328-04, PDC Light Curves

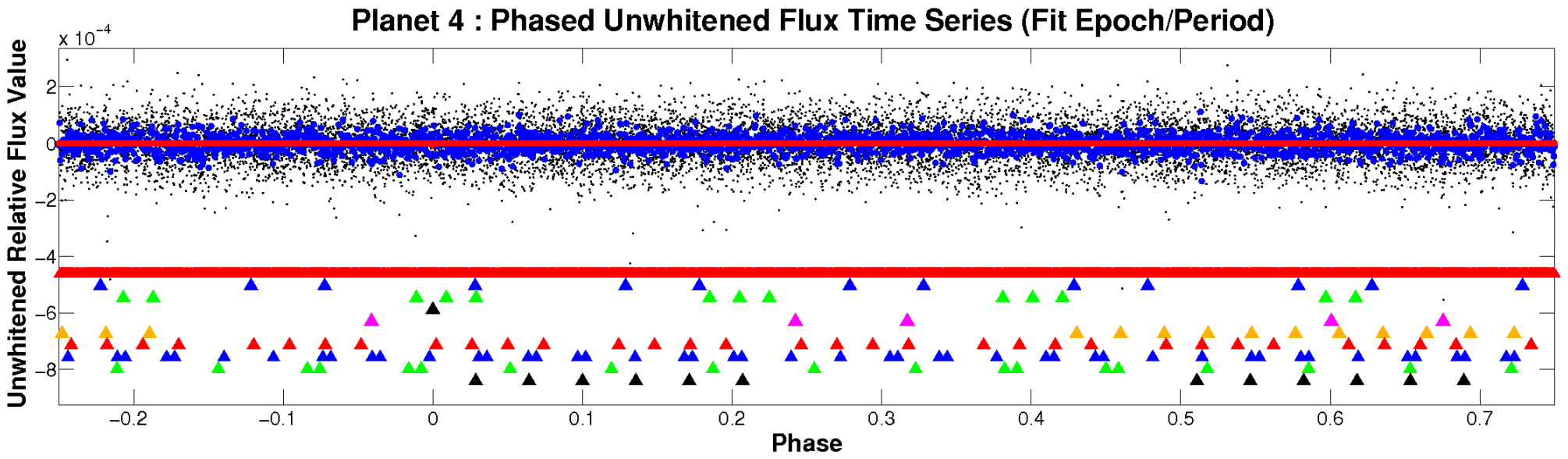


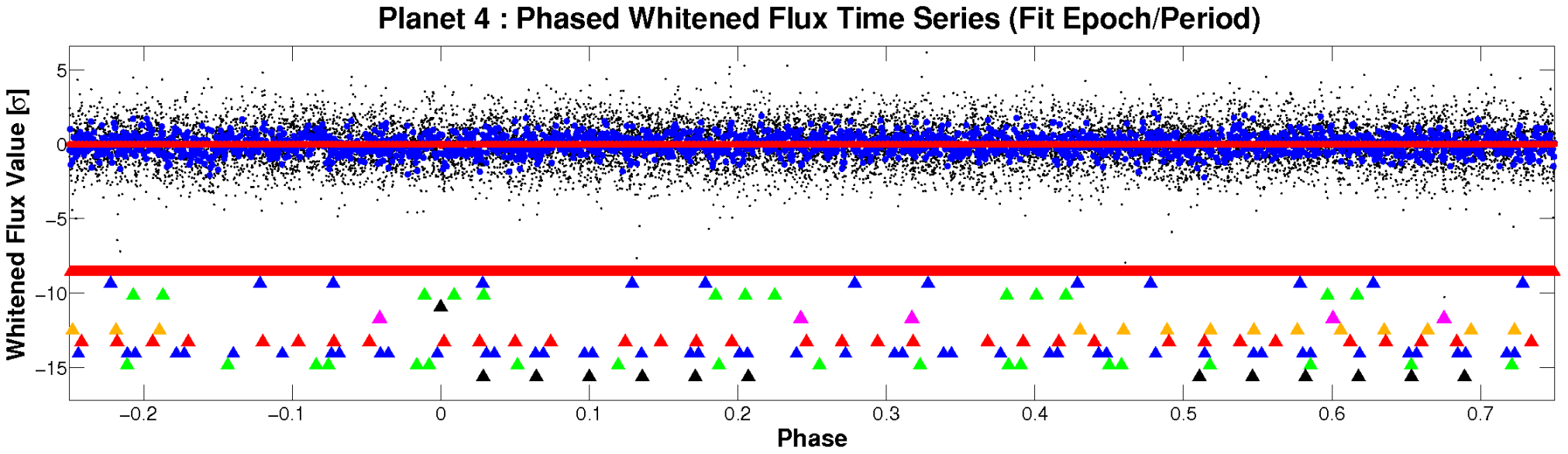

TCE 005179328-04
P = 25.298 days
P = 50.597 days
P = 101.193 days
Normalized Flux
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015
−0.0020
200
400
600
800
1000
1200
1400
1600
BKJD
Normalized Flux
−1.0
−0.5
0.0
0.5
1.0
Phase


DV Odd/Even
TCE 005179328-04
2.00e-04
1.50e-04
1.00e-04
5.00e-05
0.00e+00
-5.00e-05
-1.00e-04
-1.50e-04
-2.00e-04
Flux
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
Phase
Odd
Even
Model Fit


ALT Odd/Even
TCE 005179328-04
1.50e-03
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
-2.00e-03
Flux
-0.002
-0.001
0
0.001
0.002
Phase
Odd
Even
Model Fit

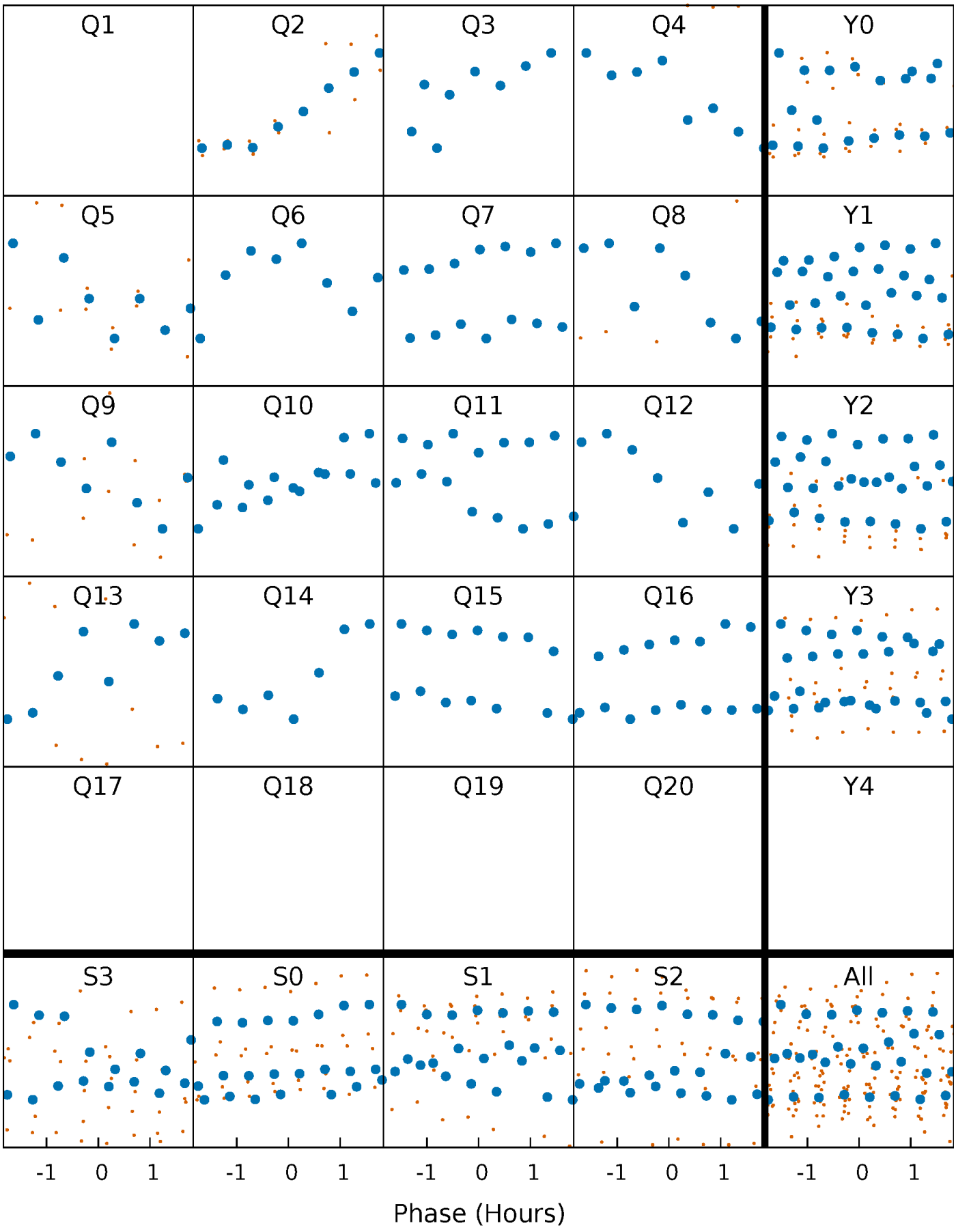
Non-Whitened Vs. Whitened Light Curve





PDC Quarter-Phased Transit Curves

TCE 005179328-04 P= 50.596736 Days T_0=179.377582 (BKJD)



DV Quarter-Phased Transit Curves

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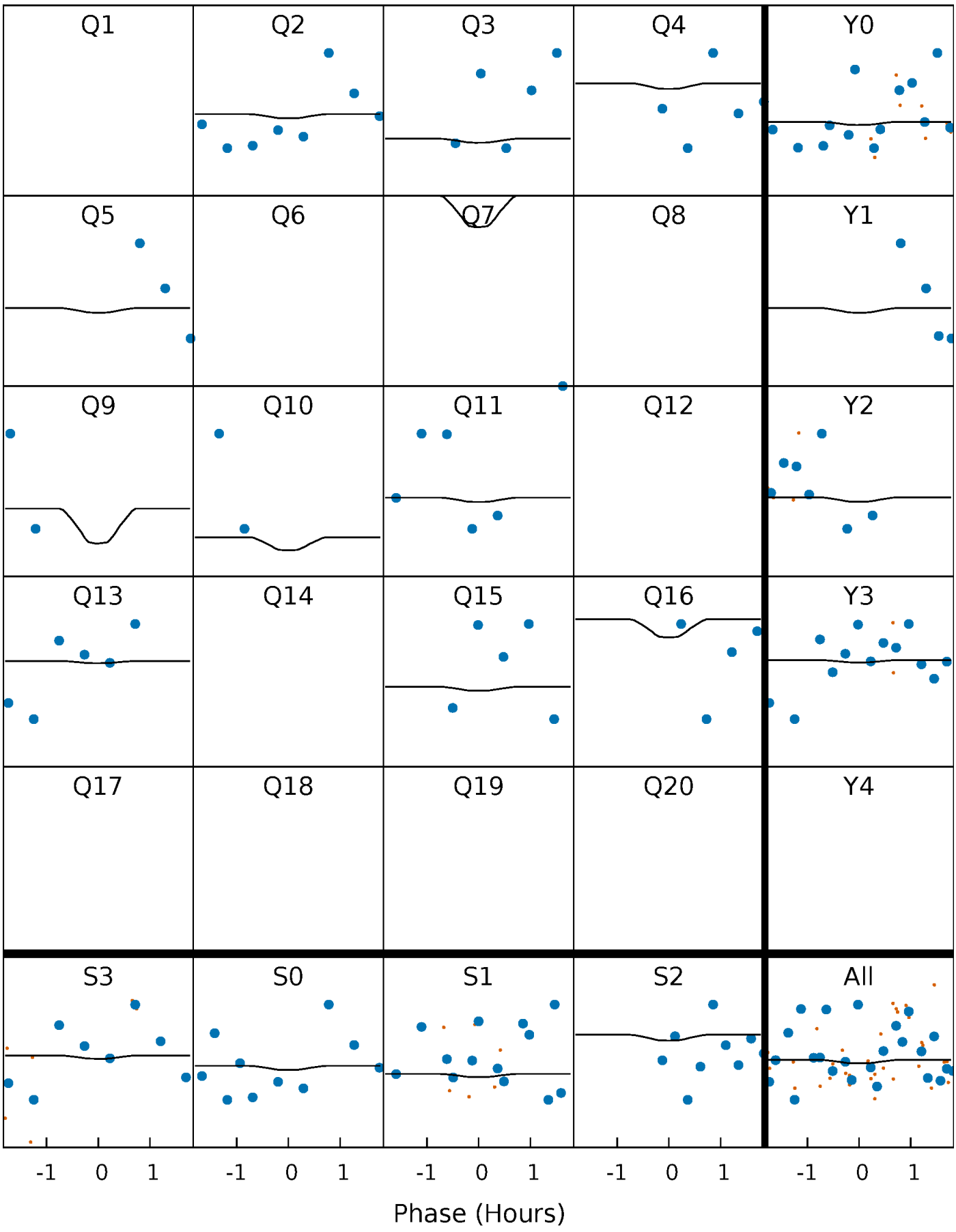
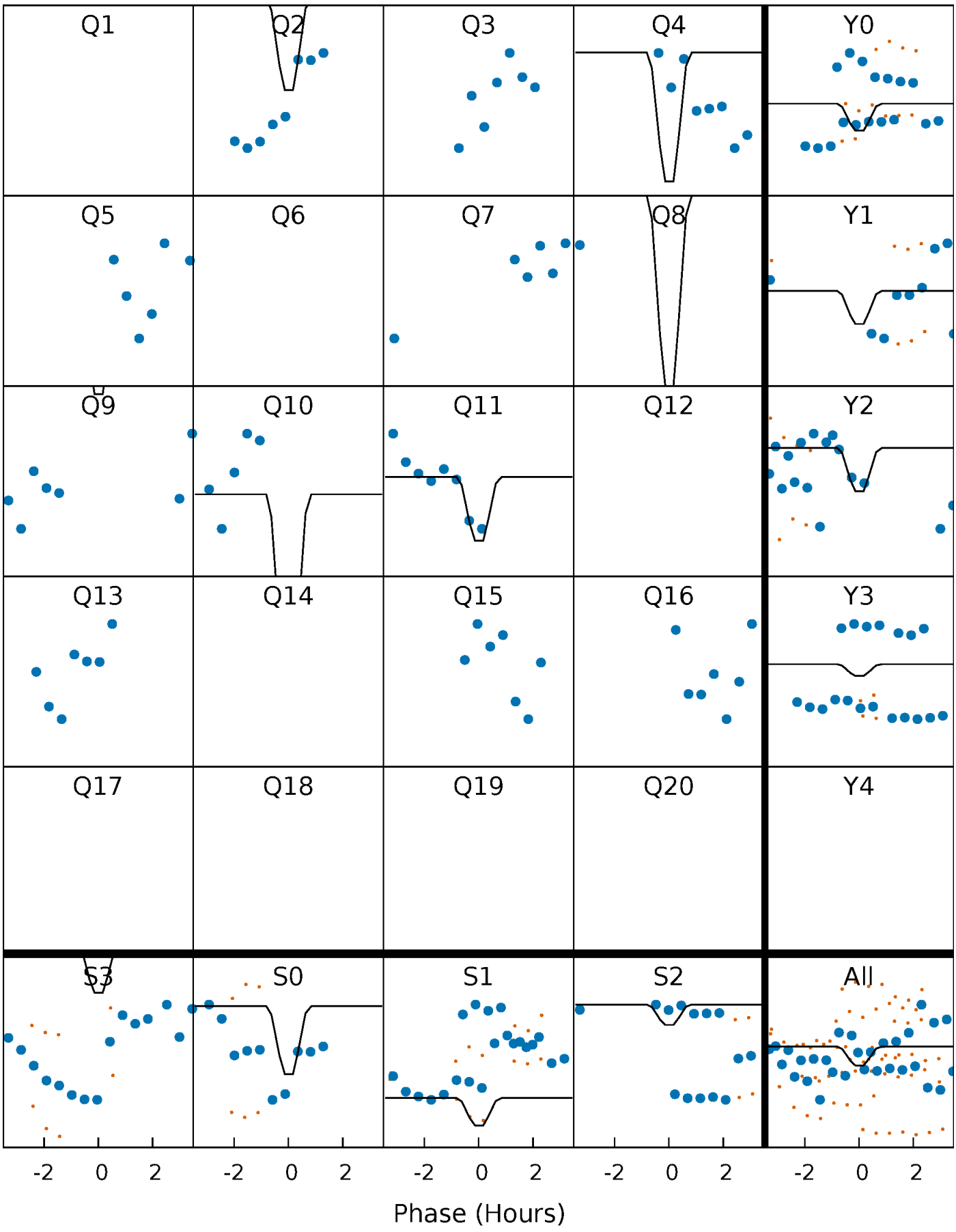


Alt. Detrend Quarter-Phased Transit Curves

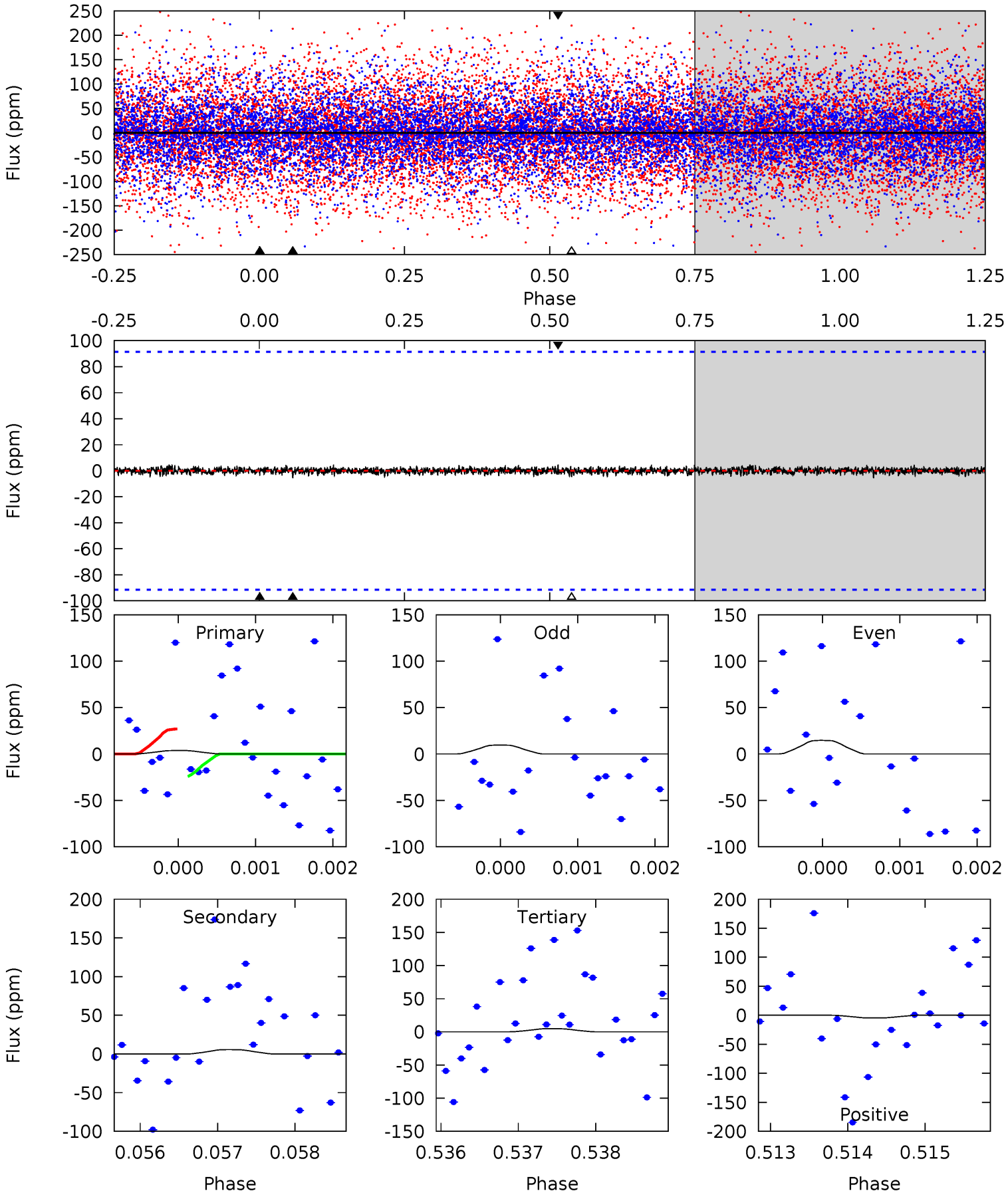
TCE 005179328-04 P= 50.596187 Days T_0=179.393255 (BKJD)



DV Model-Shift Uniqueness Test

005179328-04, P = 50.596736 Days, E = 128.780846 Days

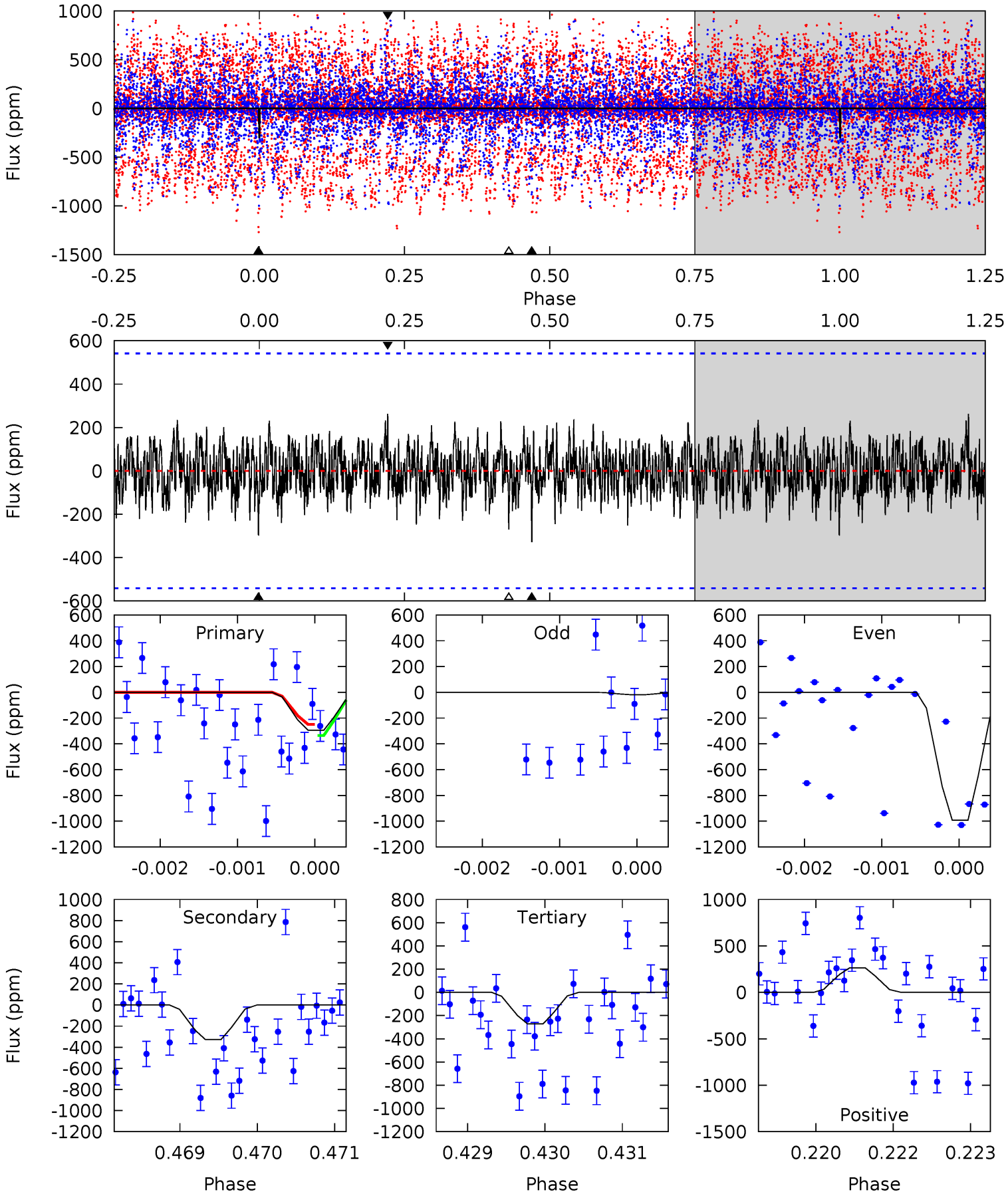
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.22	0.34	0.28	0.27	5.43	3.26	0.08	-0.06	-0.05	0.05	0.06	0.15	-1.57	0.45	0.08



Alt Model-Shift Uniqueness Test

005179328-04, P = 50.596187 Days, E = 128.797068 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.95	3.27	2.71	2.63	5.42	3.24	0.86	0.24	0.31	0.56	0.64	5.15	0.85	0.45	0.43



Stellar Parameters For KIC 005179328

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6762^{+81}_{-81}	$4.077^{+0.143}_{-0.117}$	$-0.020^{+0.150}_{-0.150}$	$1.818^{+0.307}_{-0.341}$	$1.444^{+0.115}_{-0.115}$	$0.338^{+0.242}_{-0.122}$
	+1%/-1%	+4%/-3%	+750%/-750%	+17%/-19%	+8%/-8%	+72%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005179328-04 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-6±17	$3.43^{+3.84}_{-2.38}$	1024^{+45}_{-48}	2832^{+1677}_{-6350}	12^{+207}_{-63}
Alt.	-327±100	$5.26^{+4.53}_{-3.46}$	1021^{+49}_{-46}	5578^{+4928}_{-1345}	576^{+4223}_{-414}

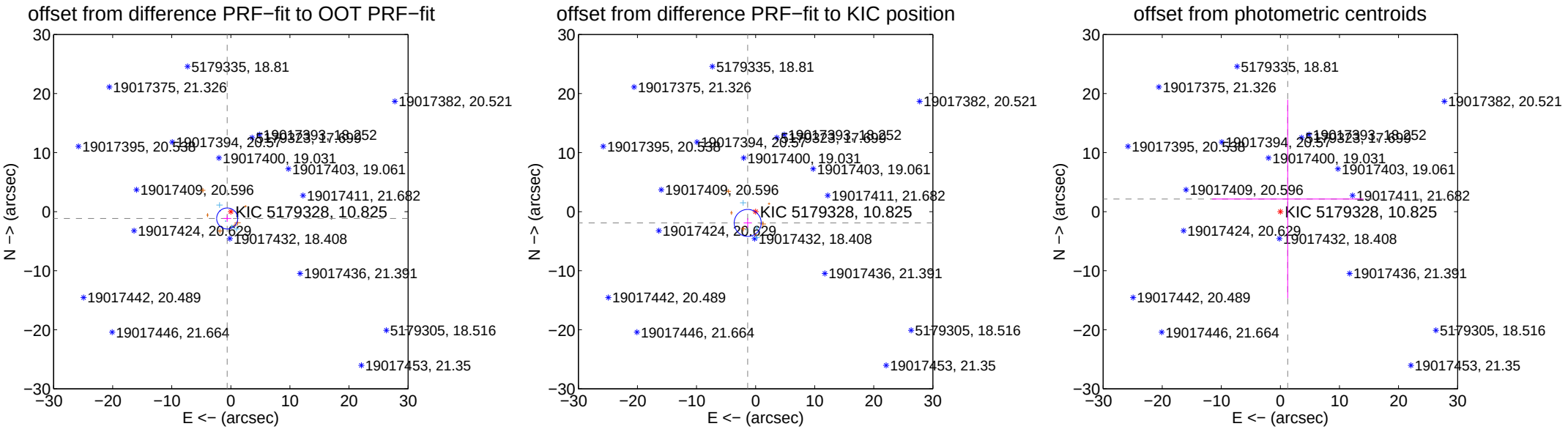
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

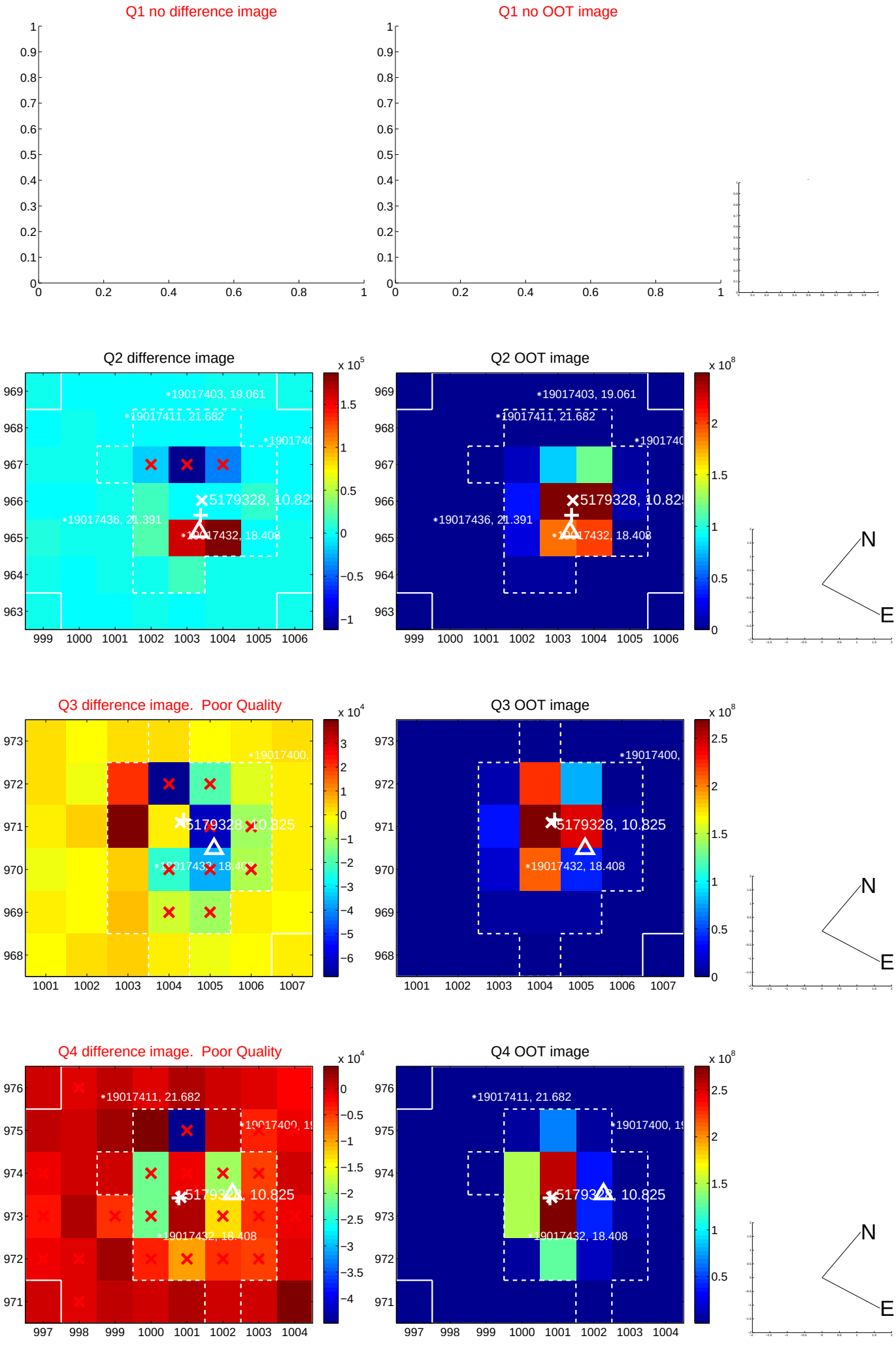
Supplemental centroid analysis for 005179328-04. Kepler magnitude: 10.82. Transit SNR 0.34
There are 4 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.42 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.315 ± 0.594	2.22	0.619 ± 0.691	-1.161 ± 0.563
PRF-fit source offset from KIC position	2.329 ± 0.762	3.06	1.336 ± 0.691	-1.908 ± 0.794
photometric centroid source offset	2.47 ± 15.89	0.16	-1.25 ± 12.81	2.14 ± 16.81

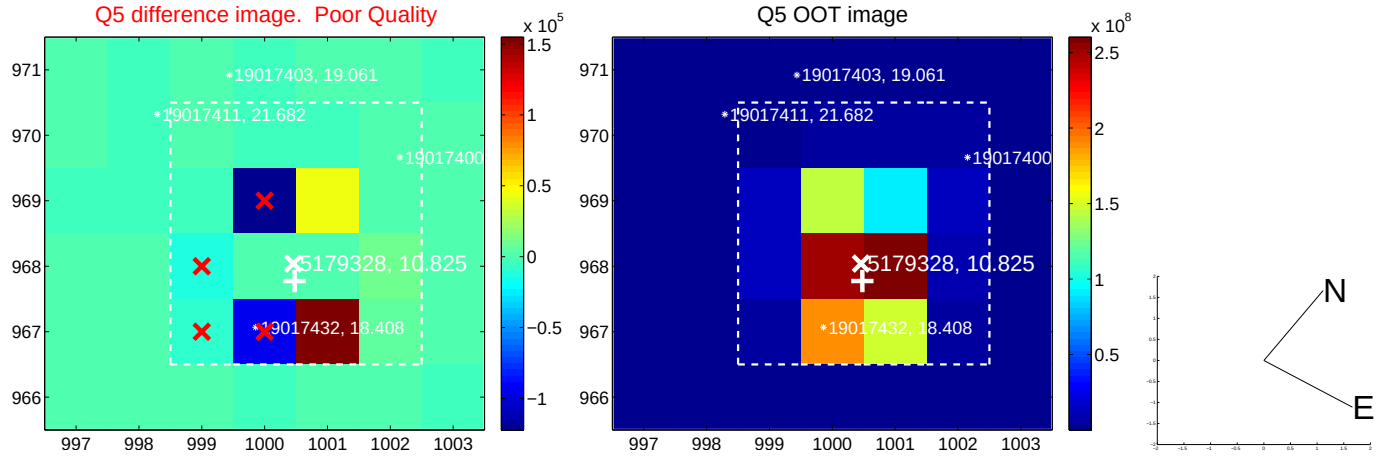


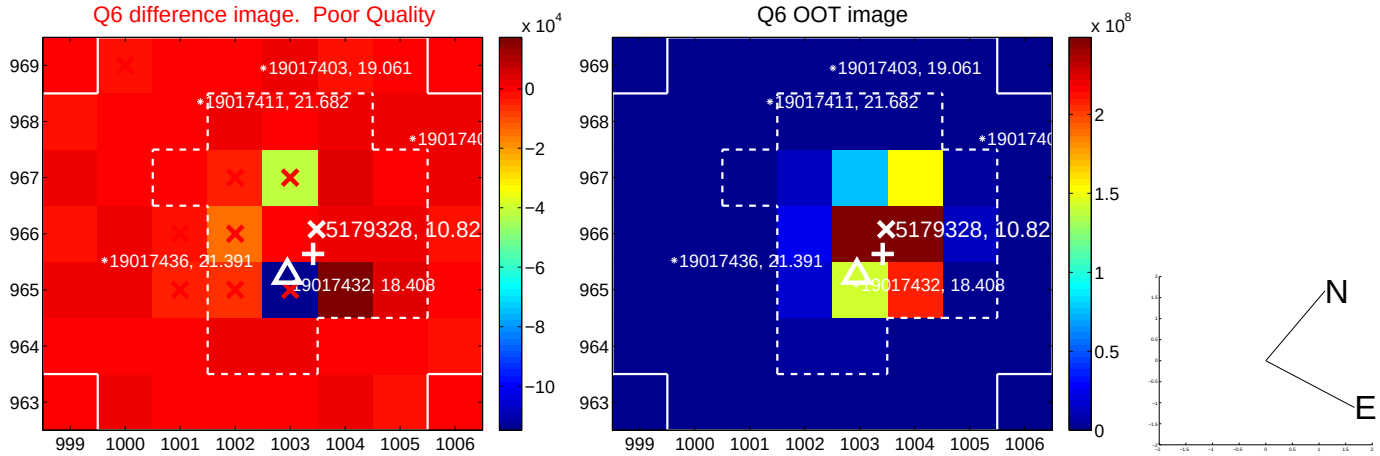
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs $> 15,000,000$ are from the UKIRT catalog.

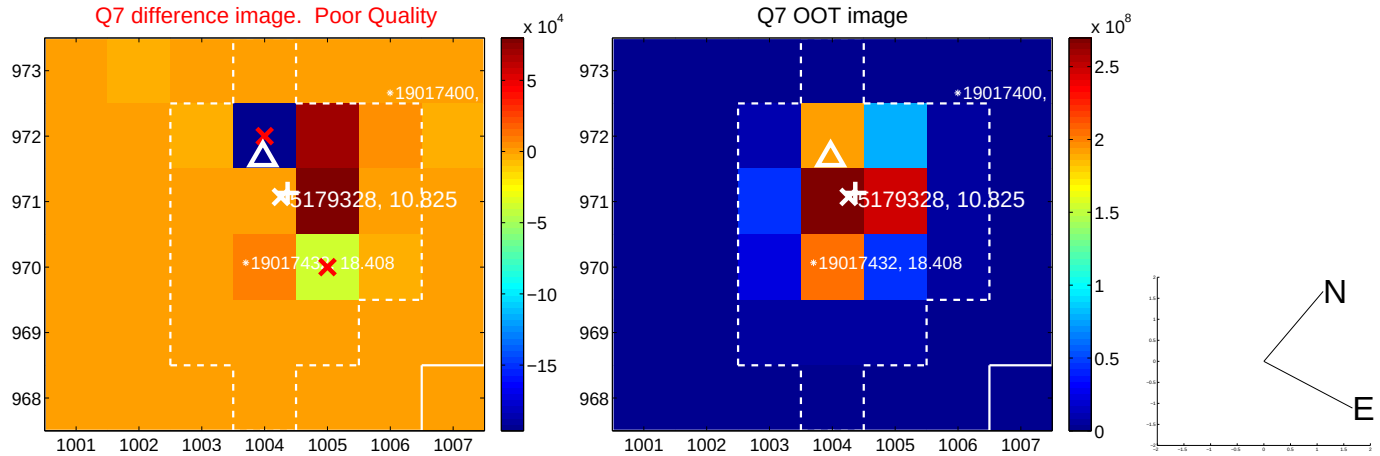
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

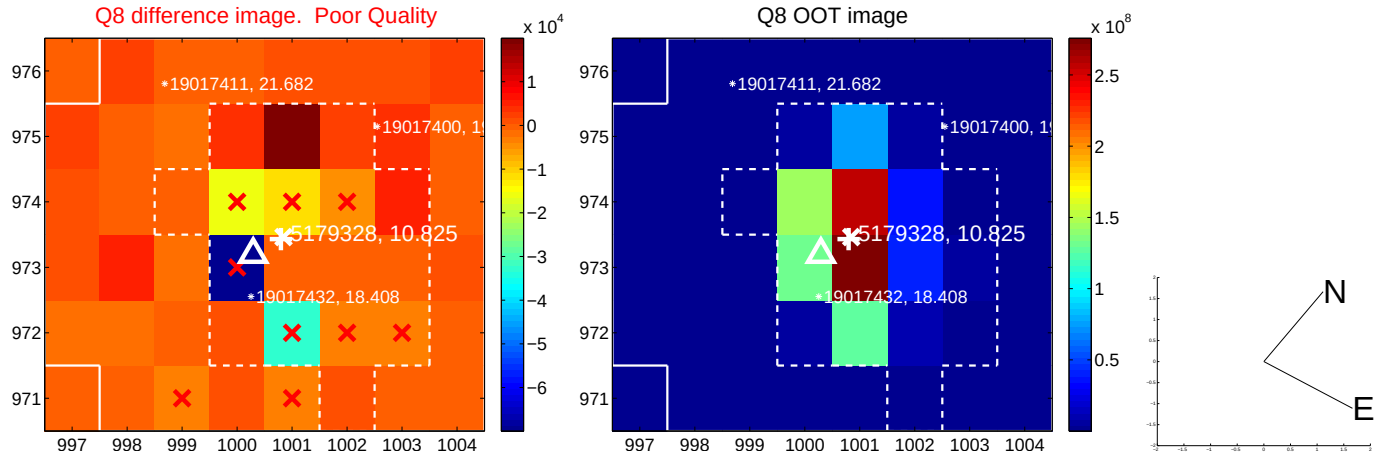


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

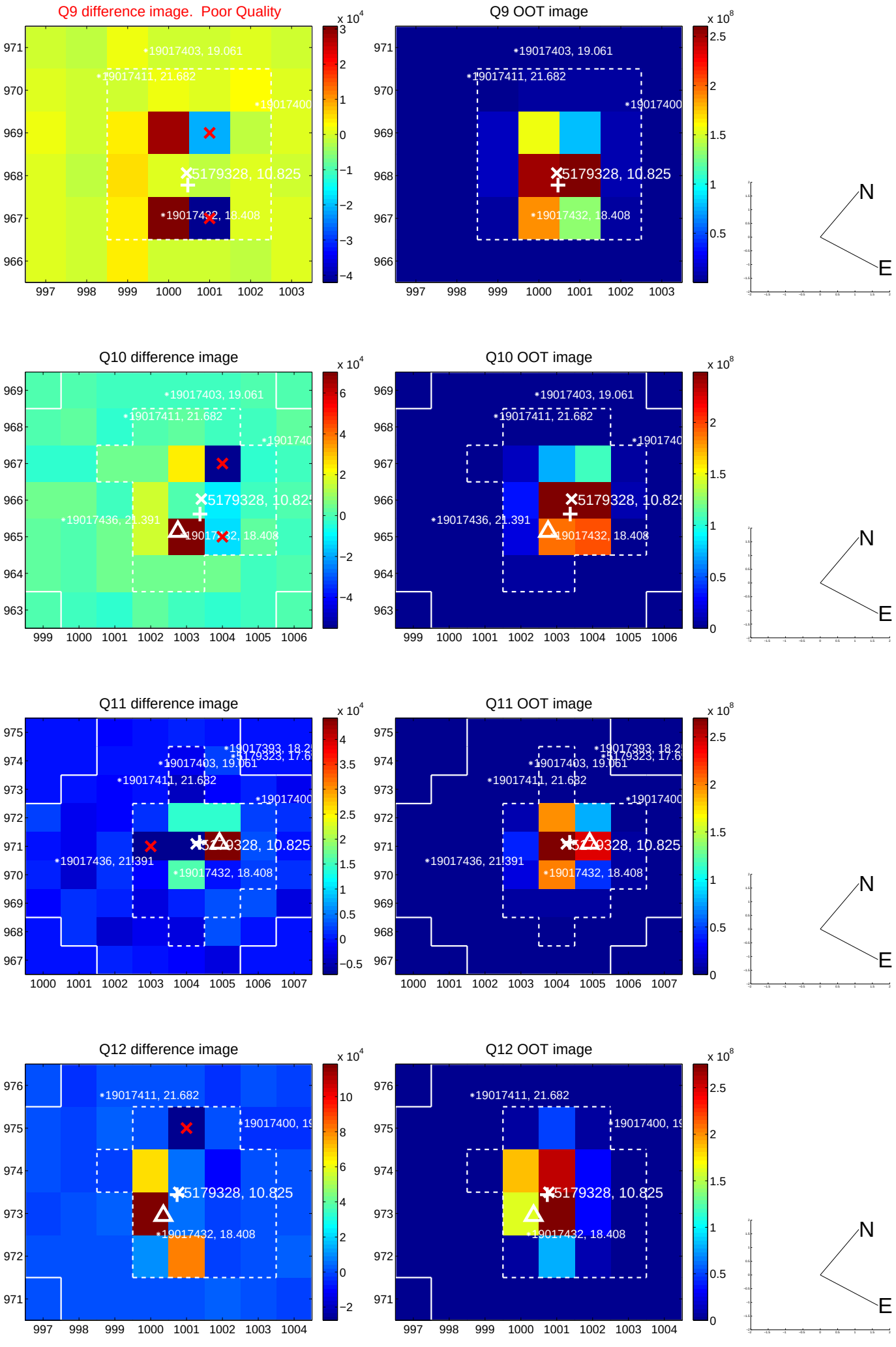




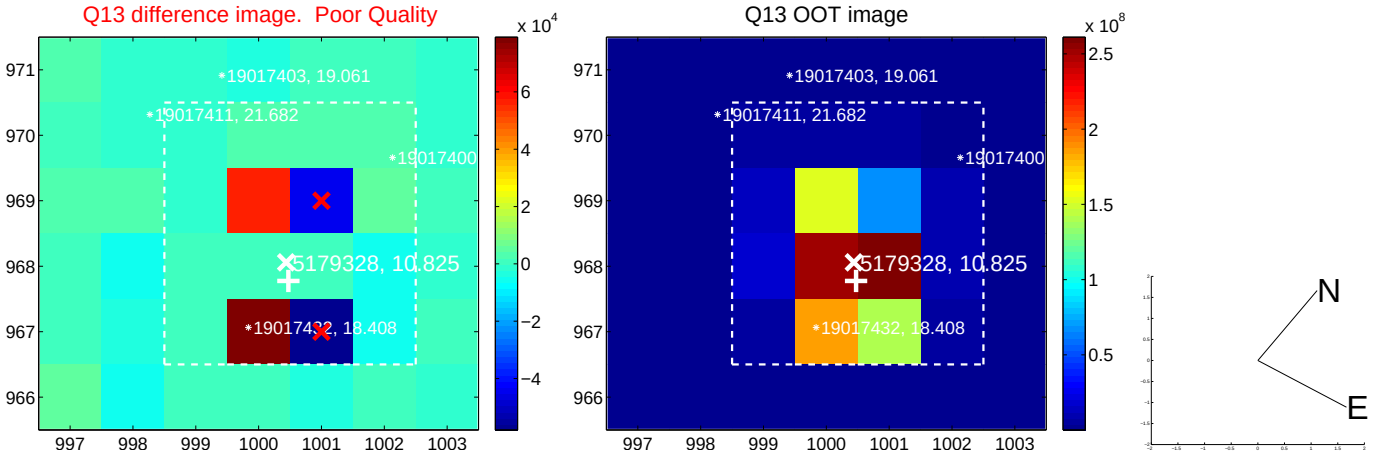


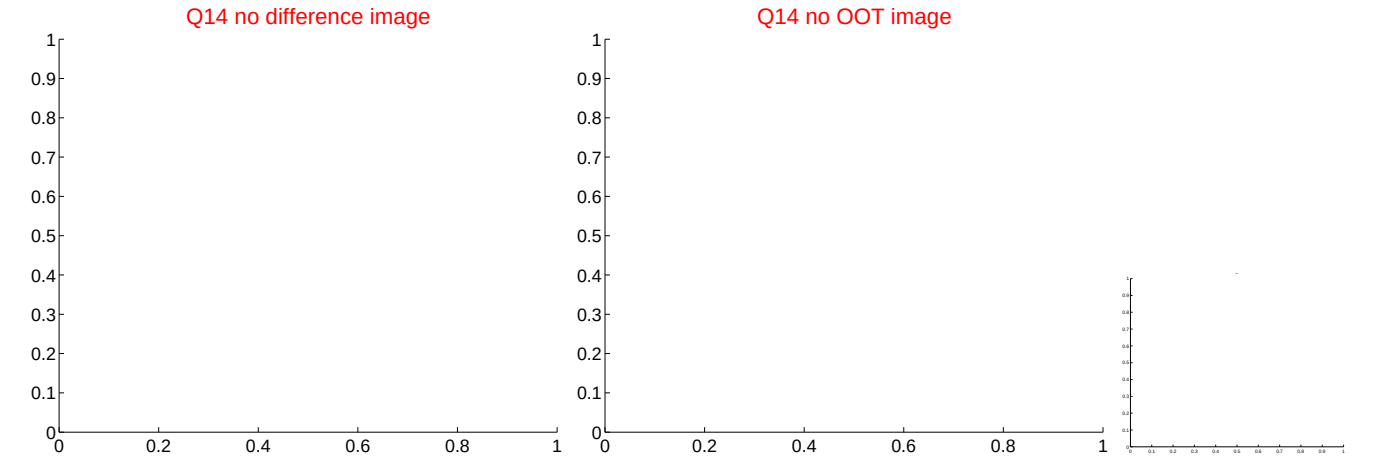


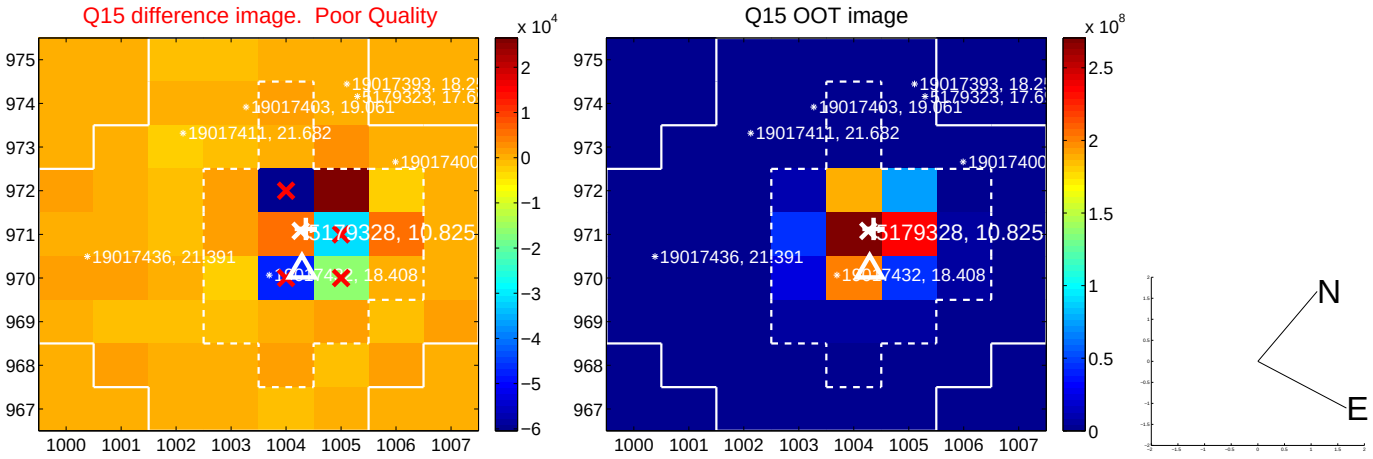
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

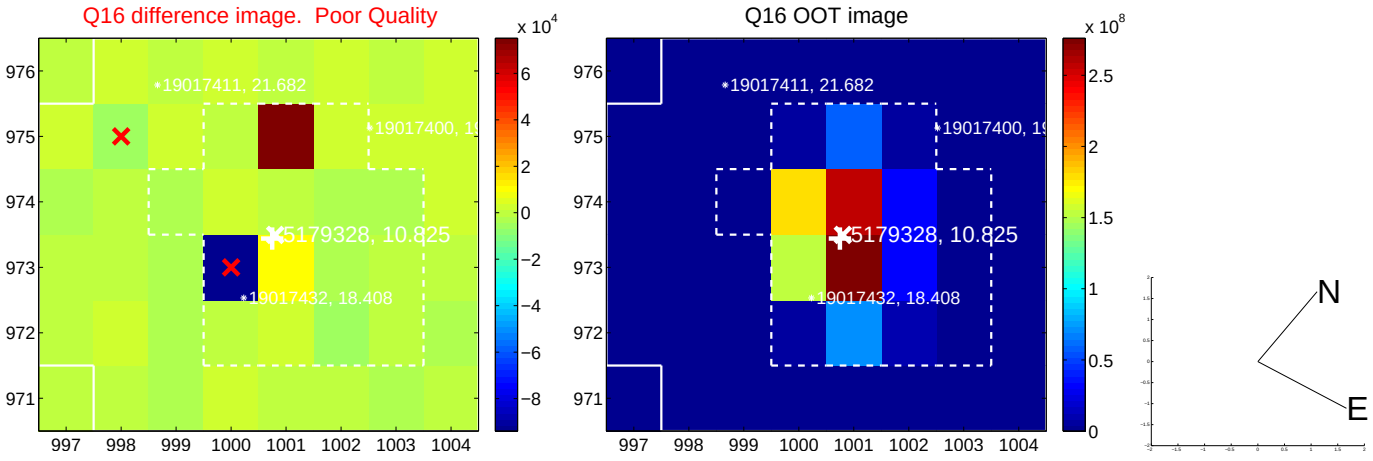


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

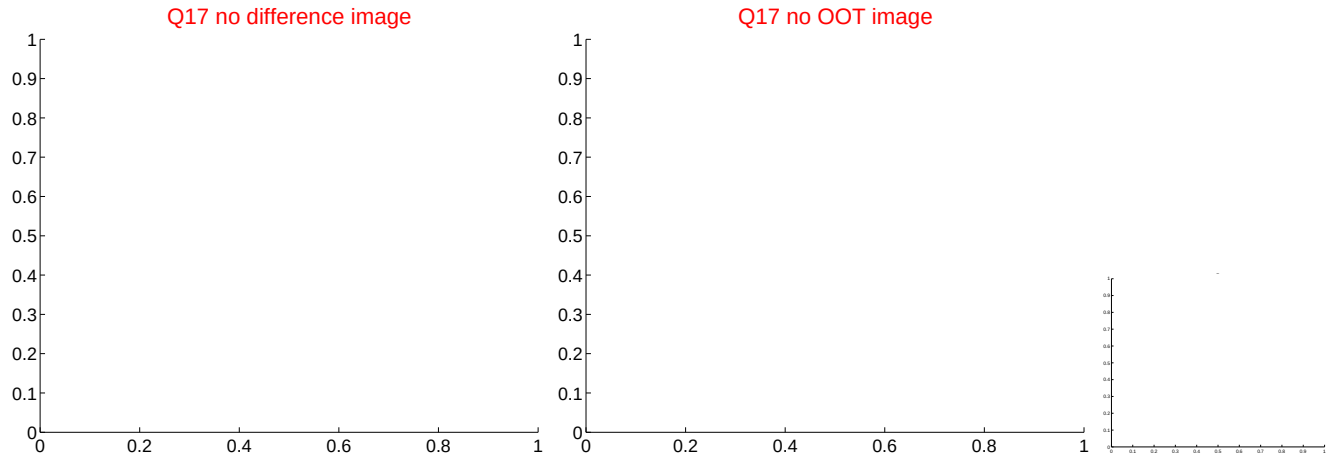


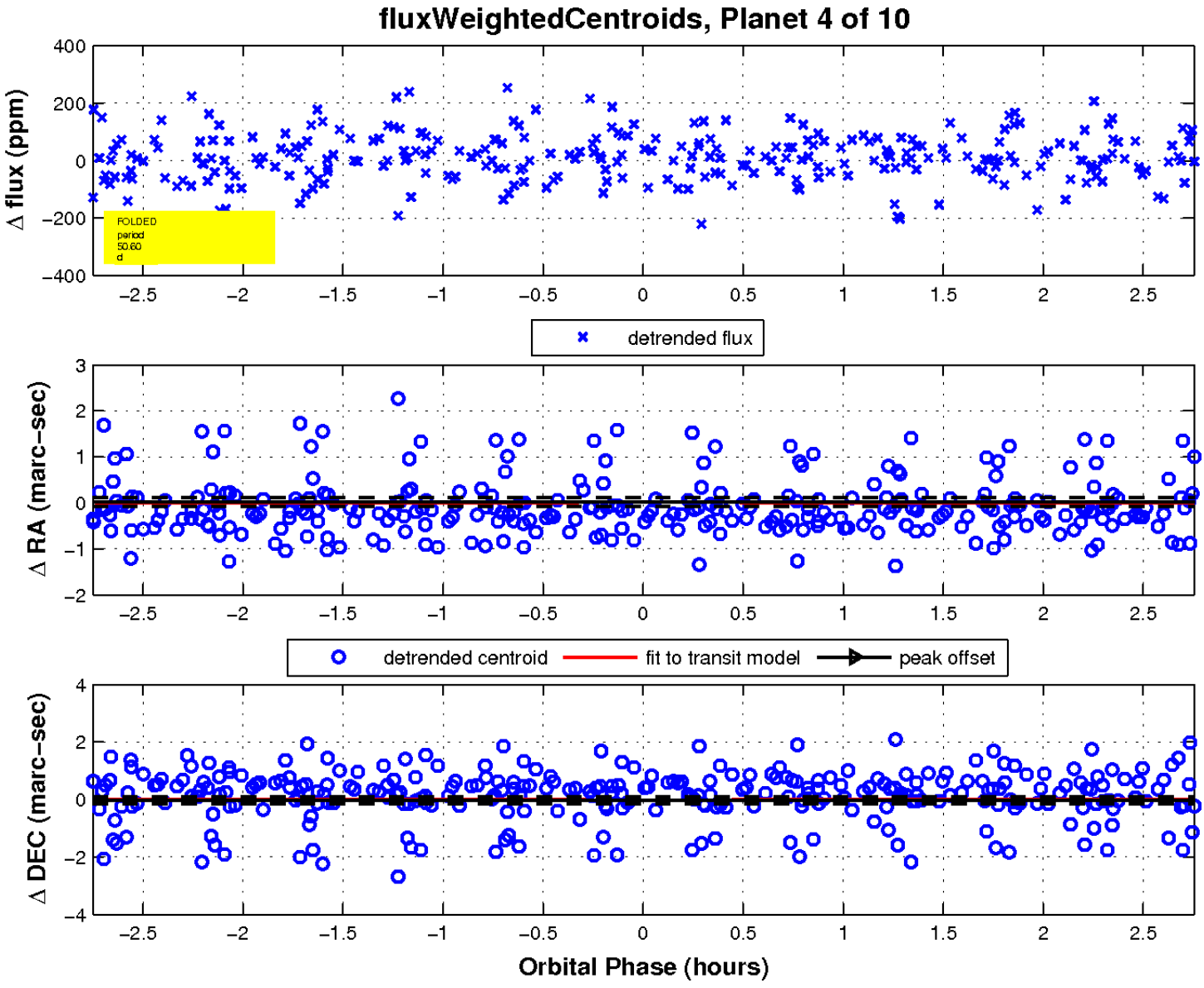




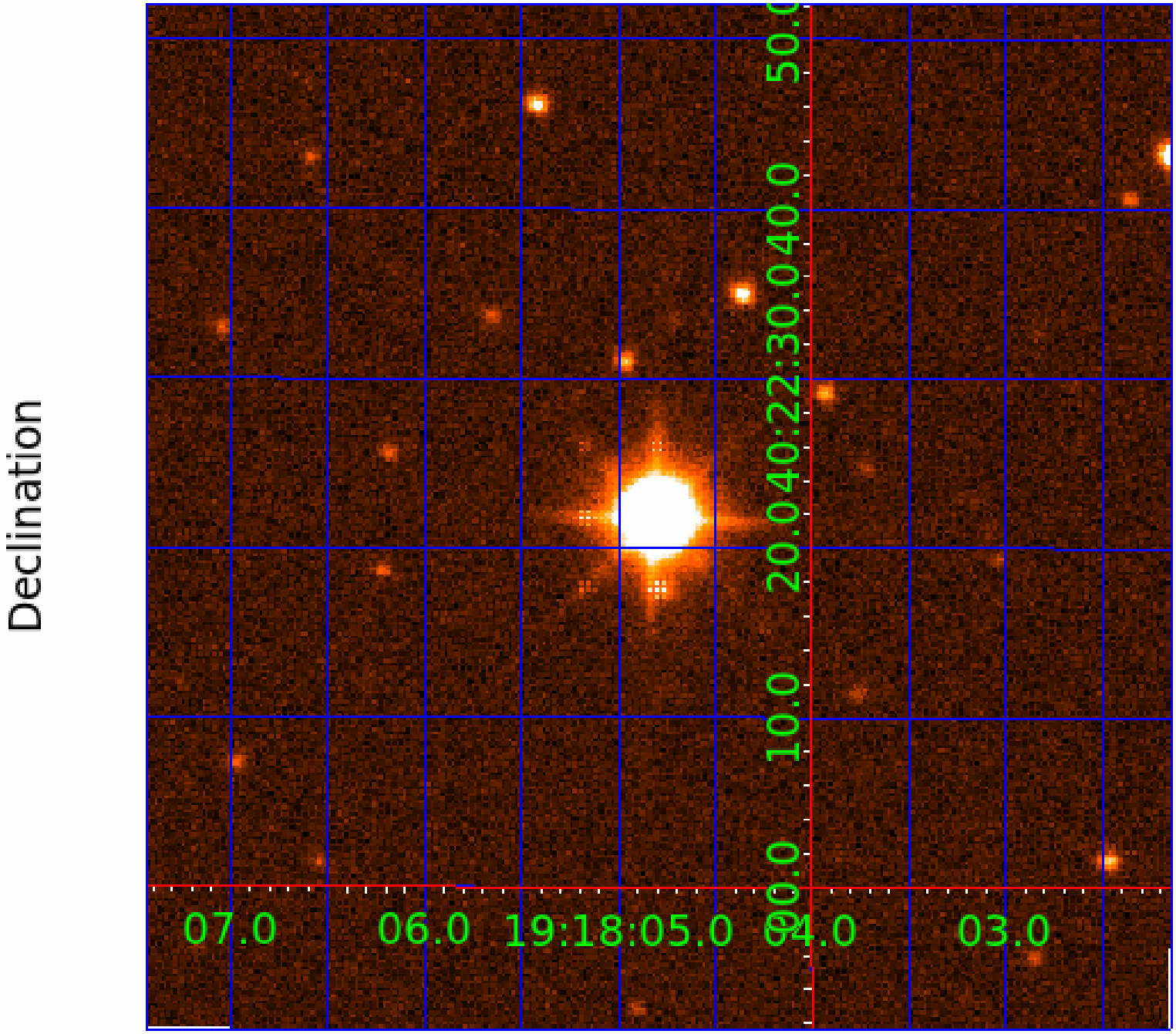


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image


Declination
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30.0
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10.0
00.0
07.0
06.0
19:18:05.0
04.0
03.0

KIC 005179328

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_\star$ ($R_\odot$)	$T_\star$ (K)	R_p ($R_\oplus$)	S_p ($S_\oplus$)
005179328-01	OBS	No	0.670370	131.764741	8.2	4.033	8.9	6.8	1.82	6762	0.60	21602.52
005179328-02	OBS	No	108.777871	185.898559	134.5	11.798	8.4	7.9	1.82	6762	2.36	24.41
005179328-04	OBS	No	50.596736	179.377582	7.5	0.919	9.0	0.3	1.82	6762	0.58	67.73
005179328-05	OBS	No	321.707316	141.046541	229.4	5.303	8.6	8.1	1.82	6762	3.00	5.75
005179328-06	OBS	No	102.672857	201.159806	177.8	2.224	8.2	8.7	1.82	6762	2.73	26.36
005179328-07	OBS	No	44.423528	165.932506	153.8	1.359	9.2	8.0	1.82	6762	2.58	80.56
005179328-08	OBS	No	31.414157	133.679706	116.3	2.102	8.4	9.1	1.82	6762	2.27	127.87
005179328-09	OBS	No	77.609623	148.121983	124.0	4.261	8.7	7.2	1.82	6762	2.30	38.29
005179328-10	OBS	No	125.588996	139.259222	156.4	9.832	8.1	8.6	1.82	6762	2.43	20.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005179328-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
005179328-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_SATURATED
005179328-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_SATURATED
005179328-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

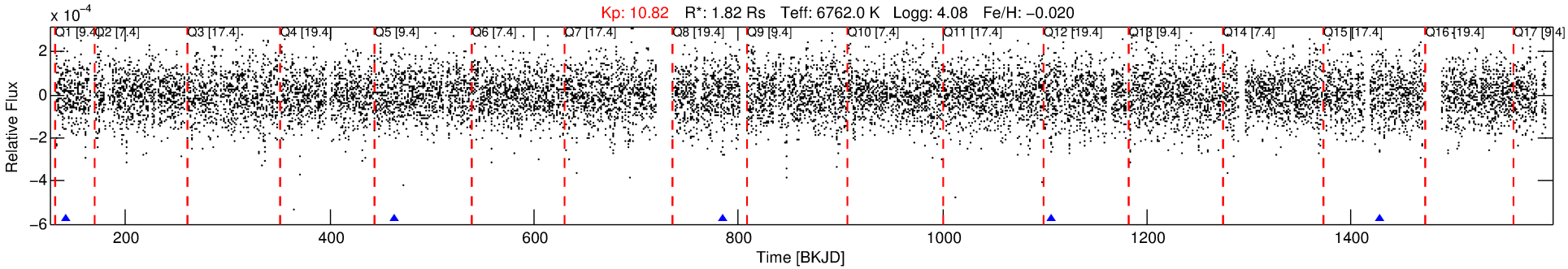
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

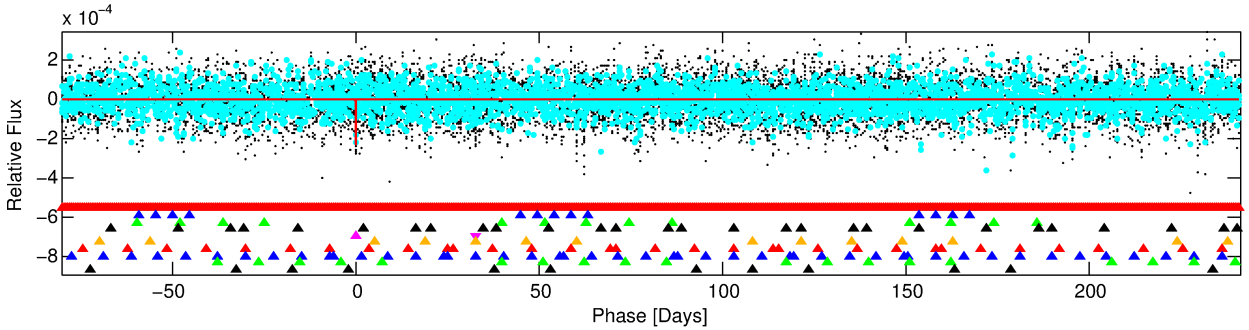
Ephemeris Match Information For 005179328-05

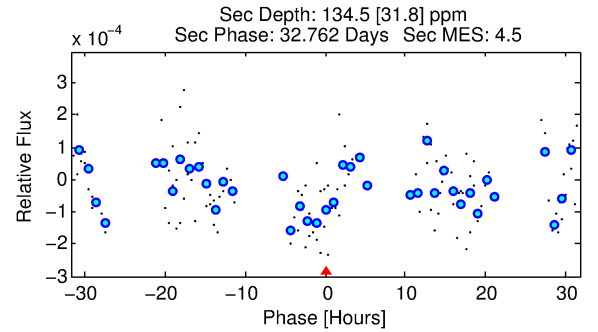
No Significant Match Found

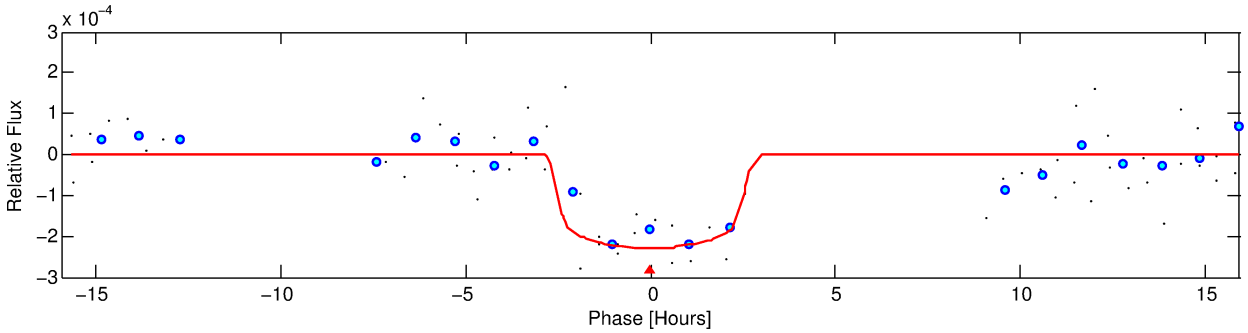
DV One-Page Summary

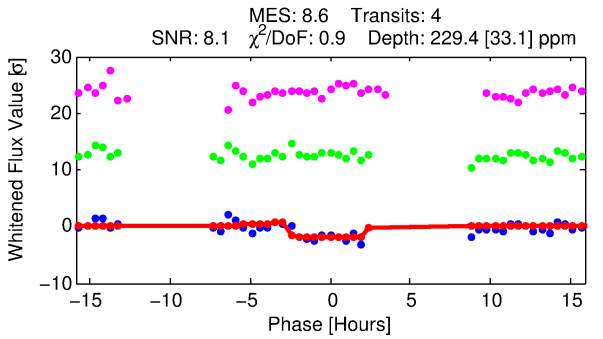
KIC: 5179328 Candidate: 5 of 10 Period: 321.707 d

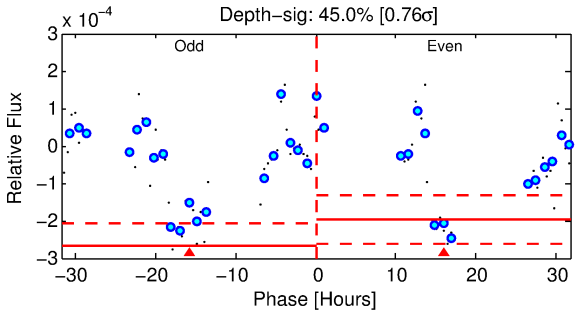


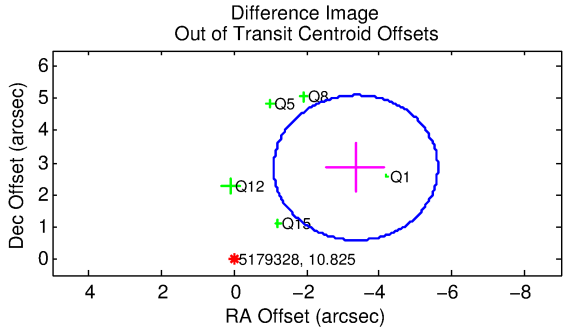












DV Fit Results:

Period = 321.70732 [0.01185] d
Epoch = 141.0465 [0.0354] BKJD
Rp/R* = 0.0151 [0.0137]
a/R* = 311.59 [1613.99]
b = 0.76 [2.96]

Seff = 5.75 [1.48]
Teq = 395 [25] K
Rp = 3.00 [2.77] Re
a = 1.0377 [0.1727] AU

Ag = 8868.03 [16345.34] [0.54σ]
Teffp = 5924 [2705] K [2.04σ]

DV Diagnostic Results:

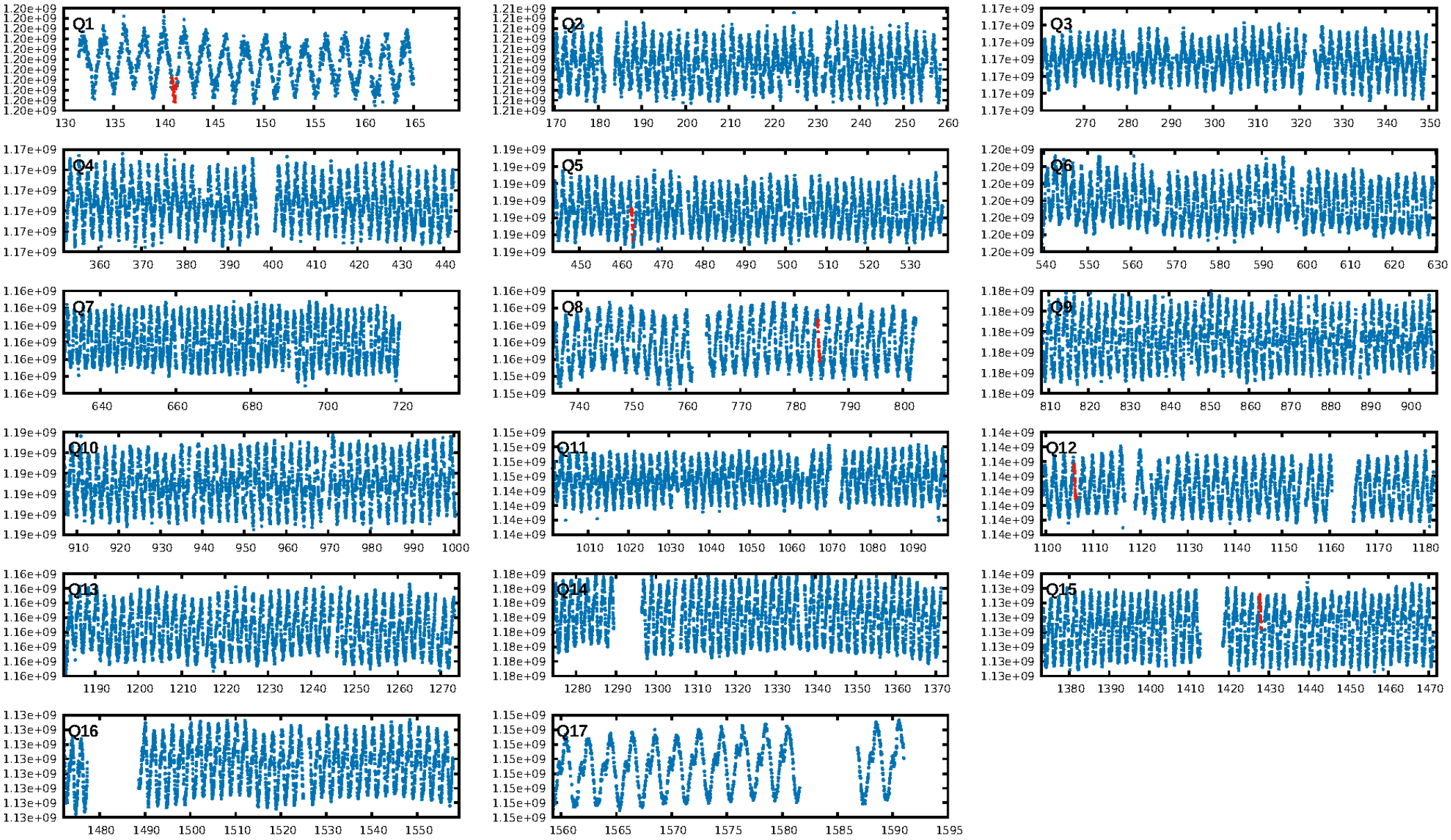
ShortPeriod−sig: 100.0% [421.34σ]
LongPeriod−sig: N/A
ModelChiSquare2−sig: 77.1%
ModelChiSquareGof−sig: 100.0%
Bootstrap−pfa: N/A
RollingBand−fgt: 1.00 [4/4]
GhostDiagnostic−chr: 0.4202

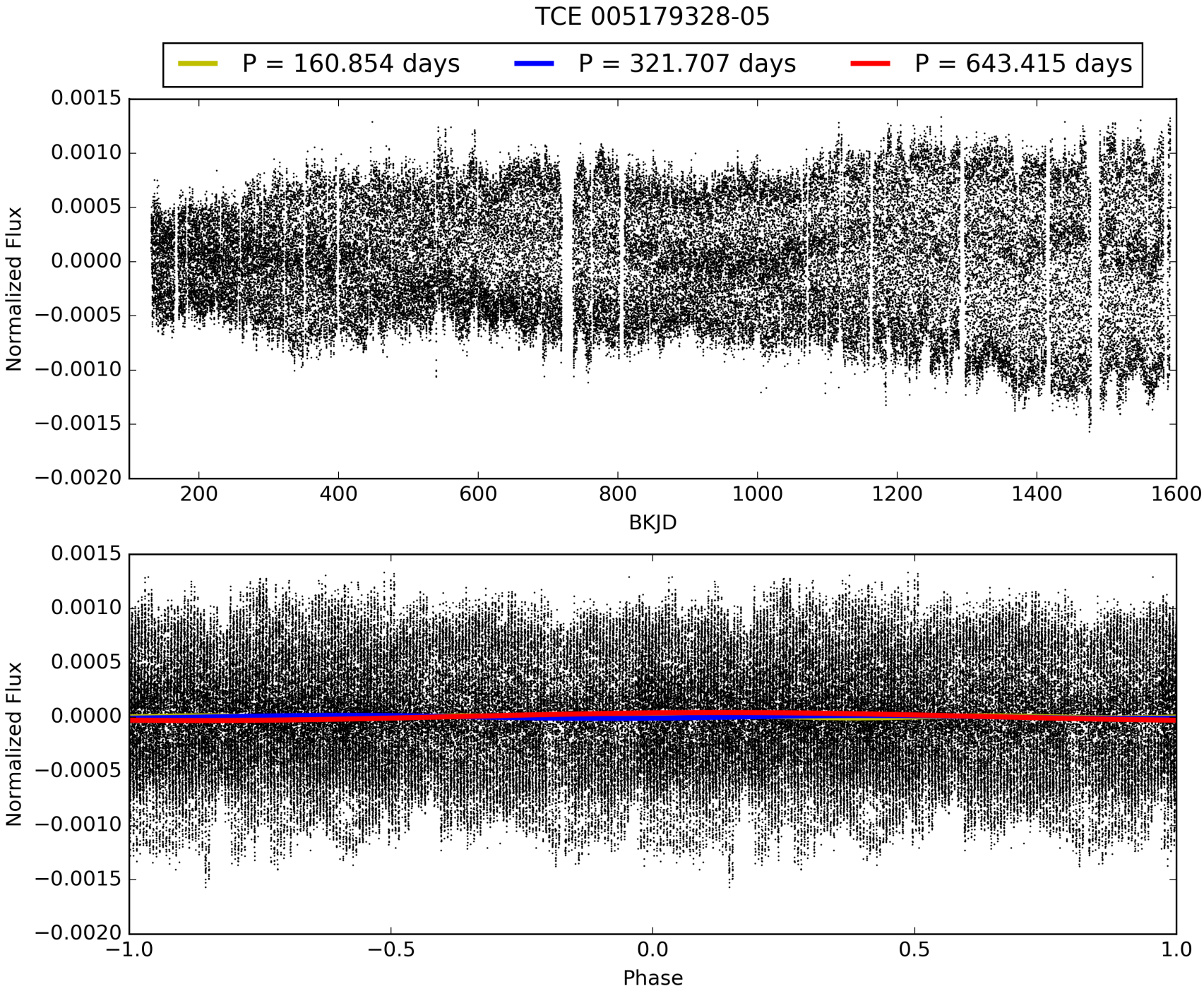
Centroid−sig: 27.6%
Centroid−so: 1.116 arcsec [1.04σ]
OotOffset−rm: 4.397 arcsec [5.84σ]
KicOffset−rm: 3.526 arcsec [6.14σ]
OotOffset−st: 0/1/2/2 [5]
KicOffset−st: 0/1/2/2 [5]
DiffImageQuality−fgm: 0.20 [1/5]
DiffImageOverlap−fno: 0.00 [0/5]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01−Feb−2016 20:02:31 Z

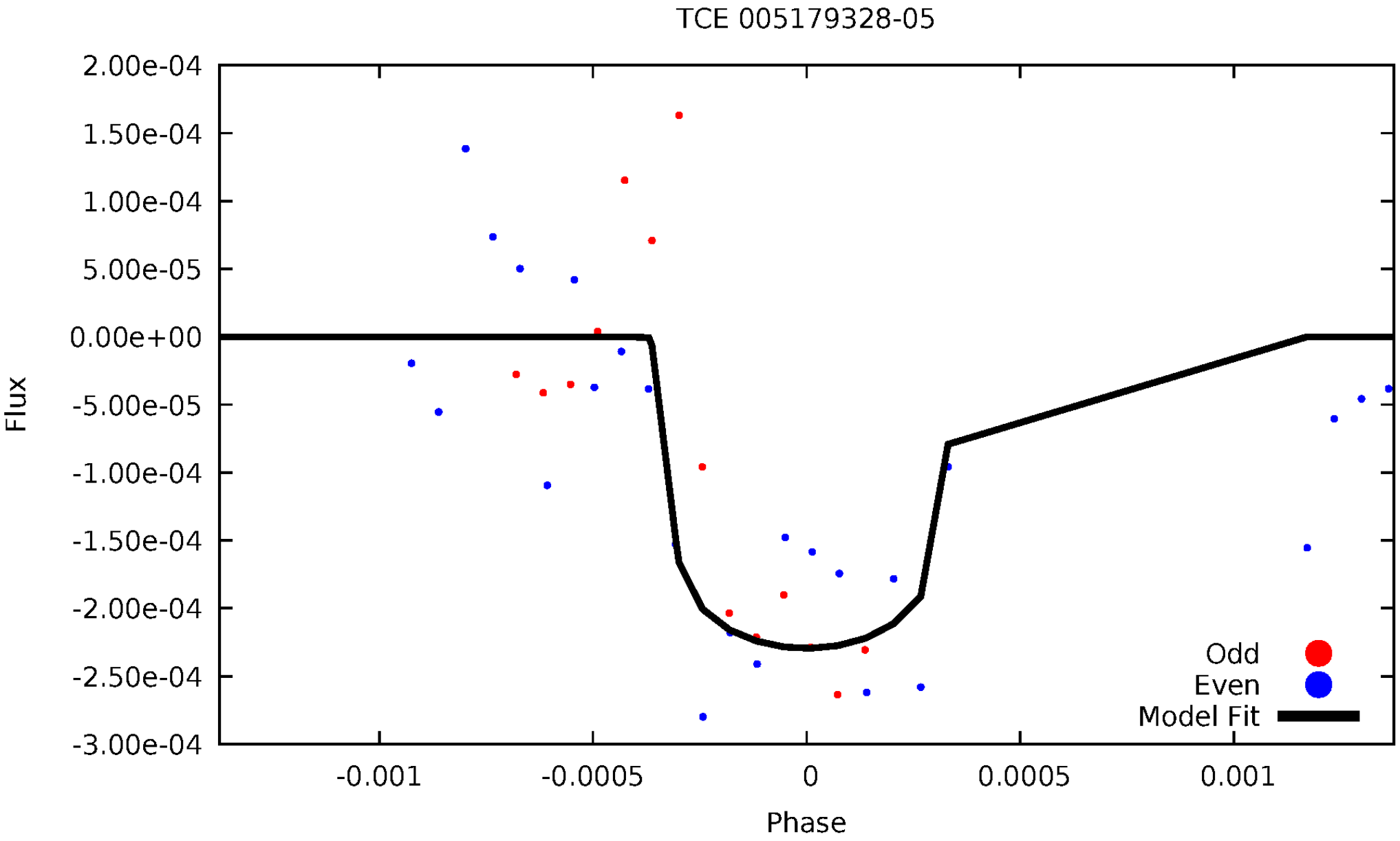
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005179328-05, PDC Light Curves

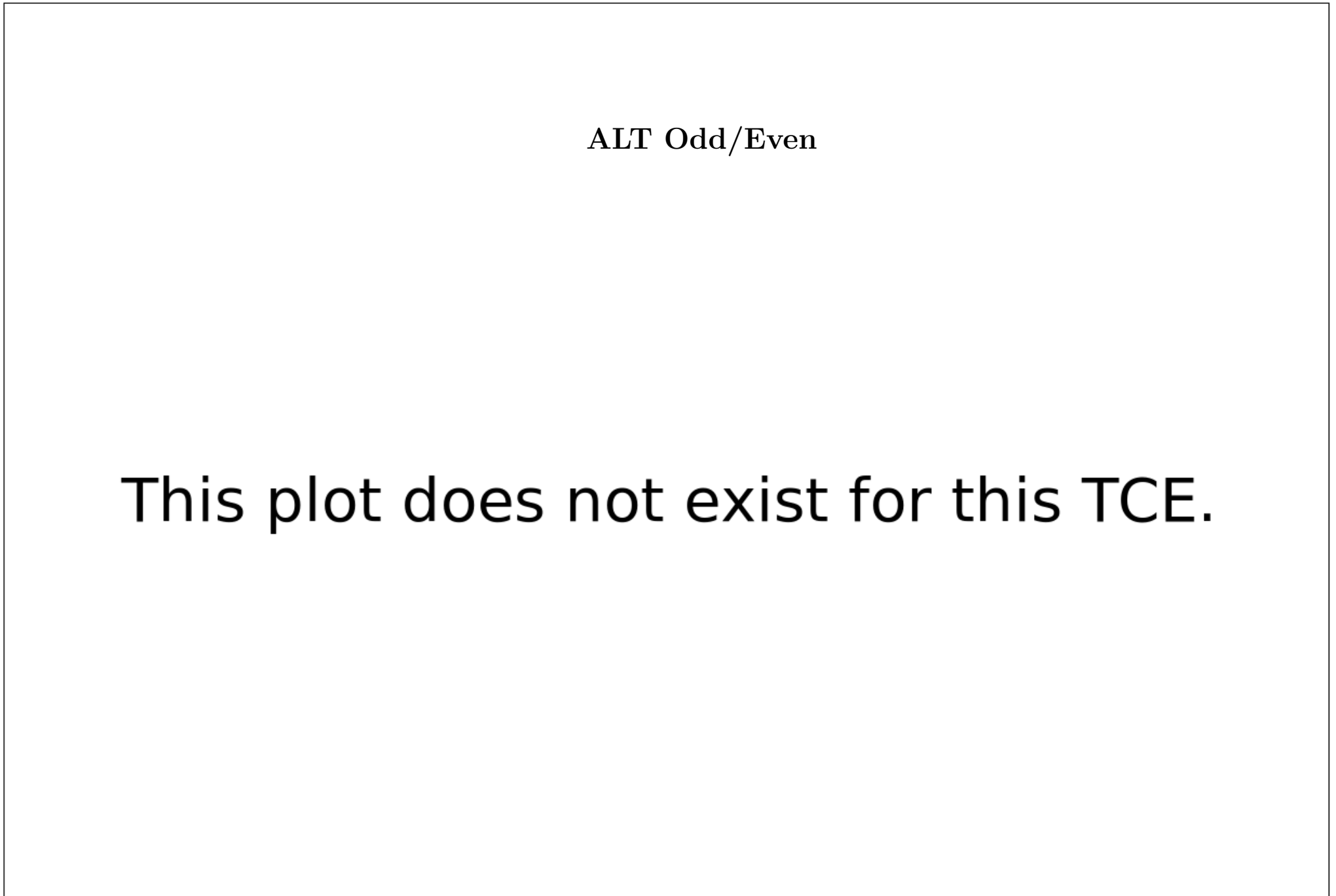



TCE 005179328-05
P = 160.854 days
P = 321.707 days
P = 643.415 days
Normalized Flux
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015
−0.0020
200
400
600
800
1000
1200
1400
1600
BKJD
Normalized Flux
−1.0
−0.5
0.0
0.5
1.0
Phase

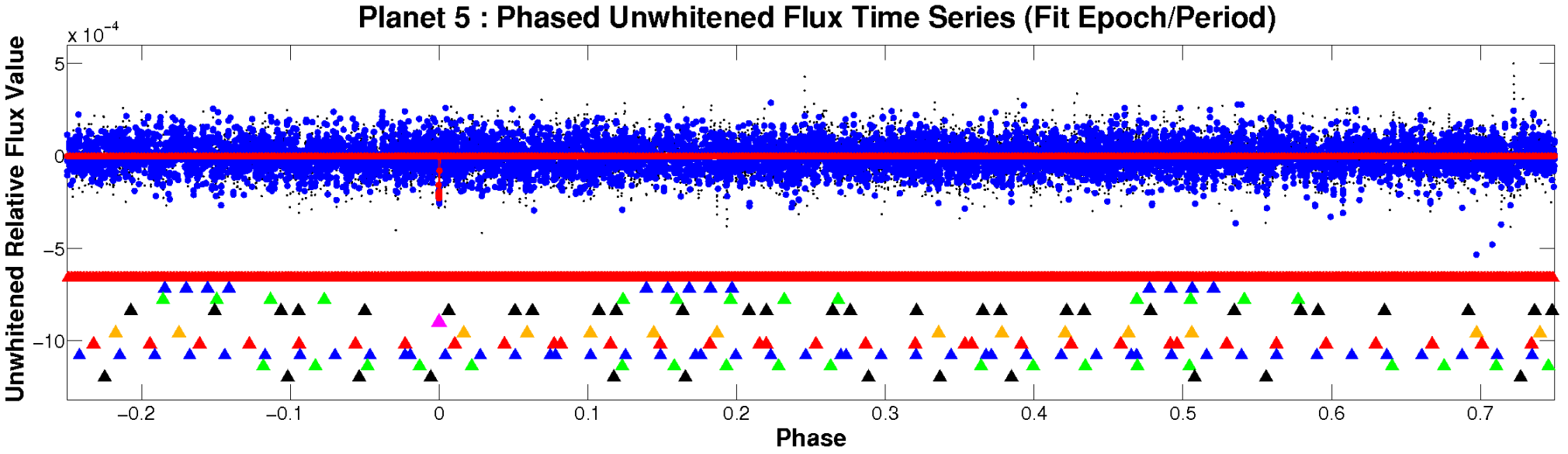
DV Odd/Even

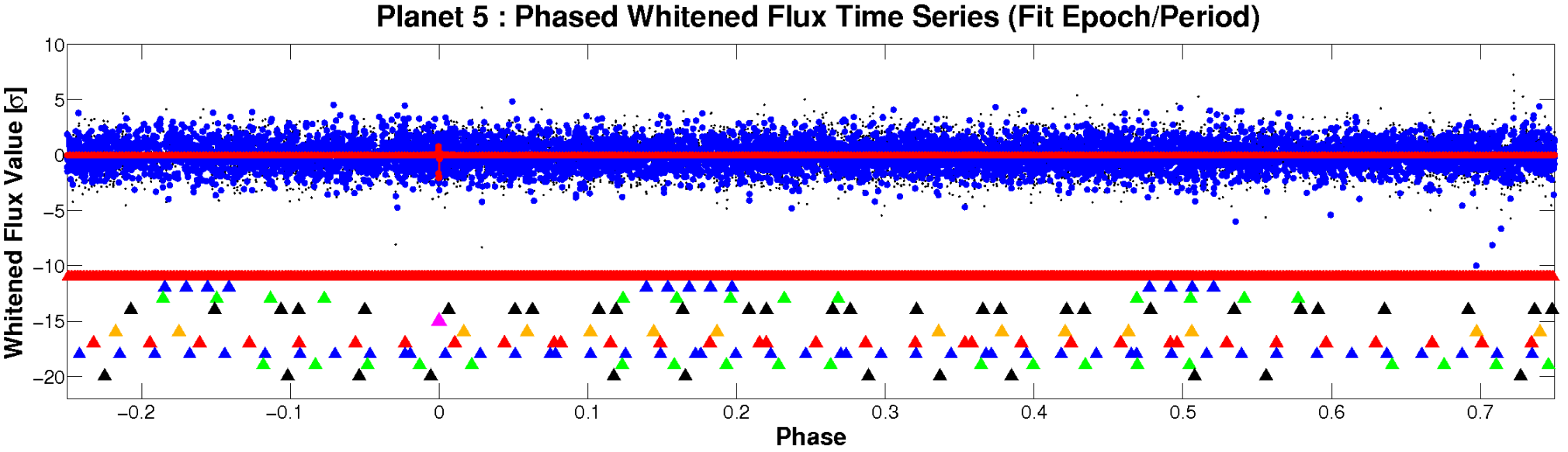

TCE 005179328-05
2.00e-04
1.50e-04
1.00e-04
5.00e-05
0.00e+00
-5.00e-05
-1.00e-04
-1.50e-04
-2.00e-04
-2.50e-04
-3.00e-04
Flux
-0.001
-0.0005
0
0.0005
0.001
Phase
Odd
Even
Model Fit

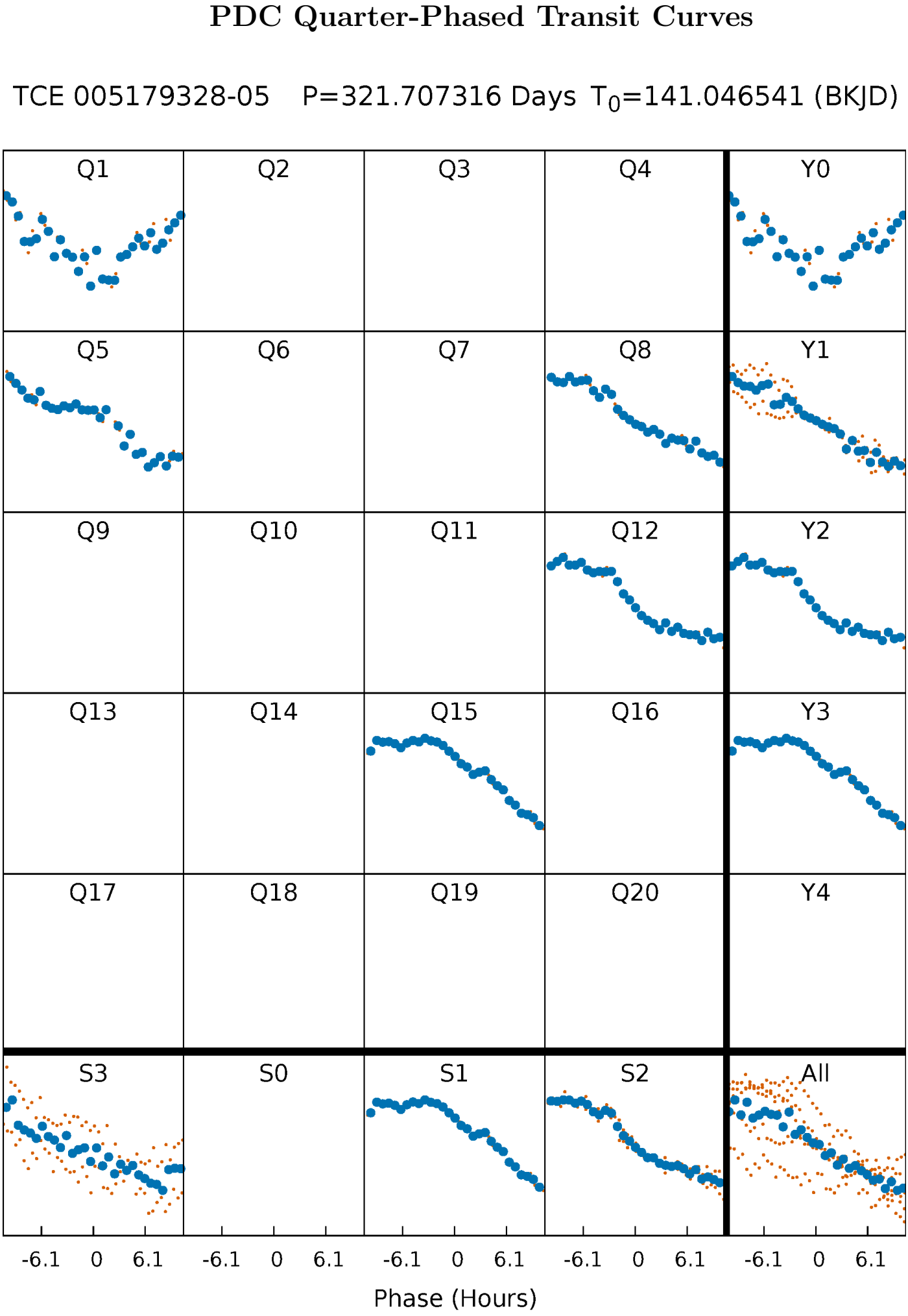
ALT Odd/Even



Non-Whitened Vs. Whitened Light Curve

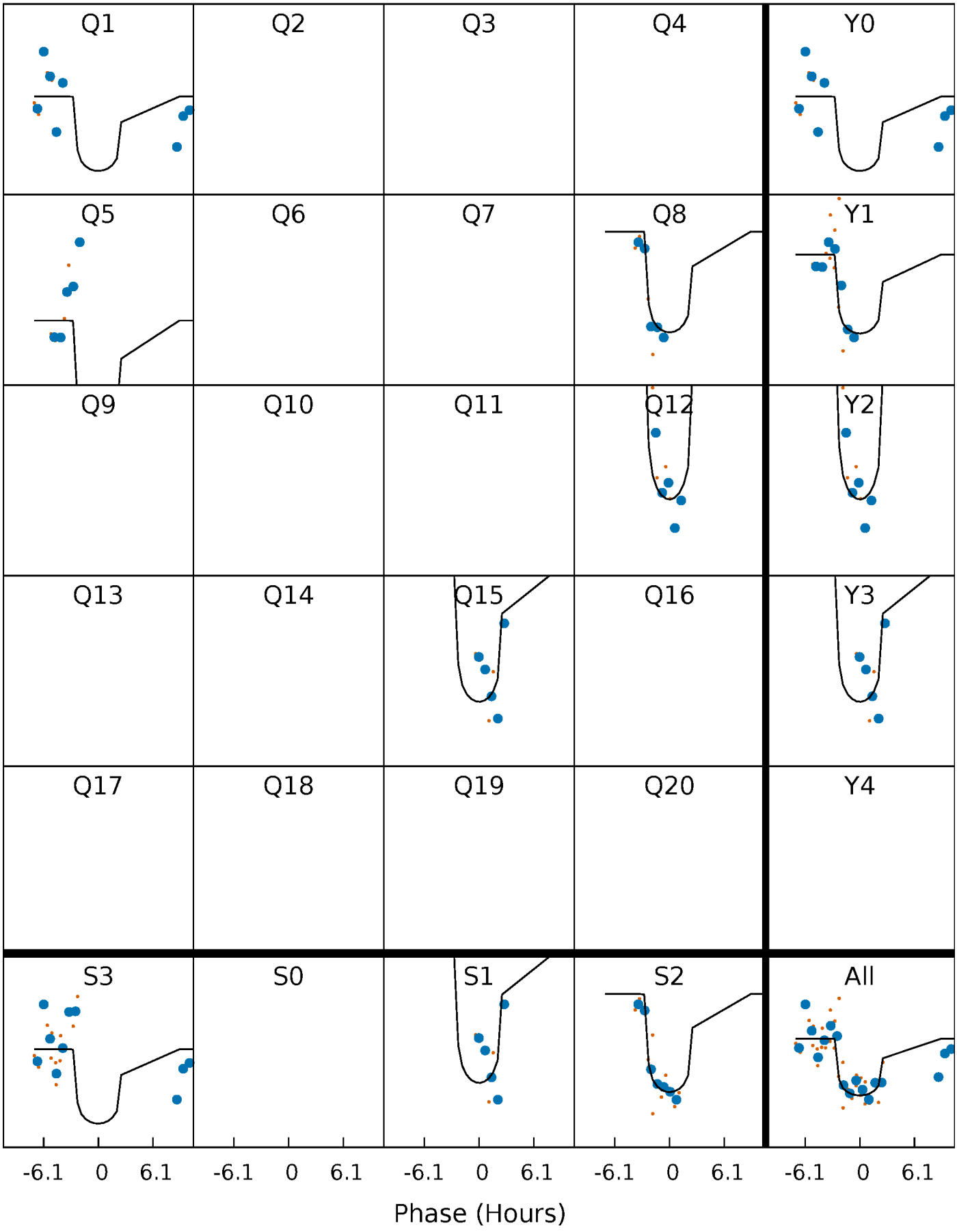


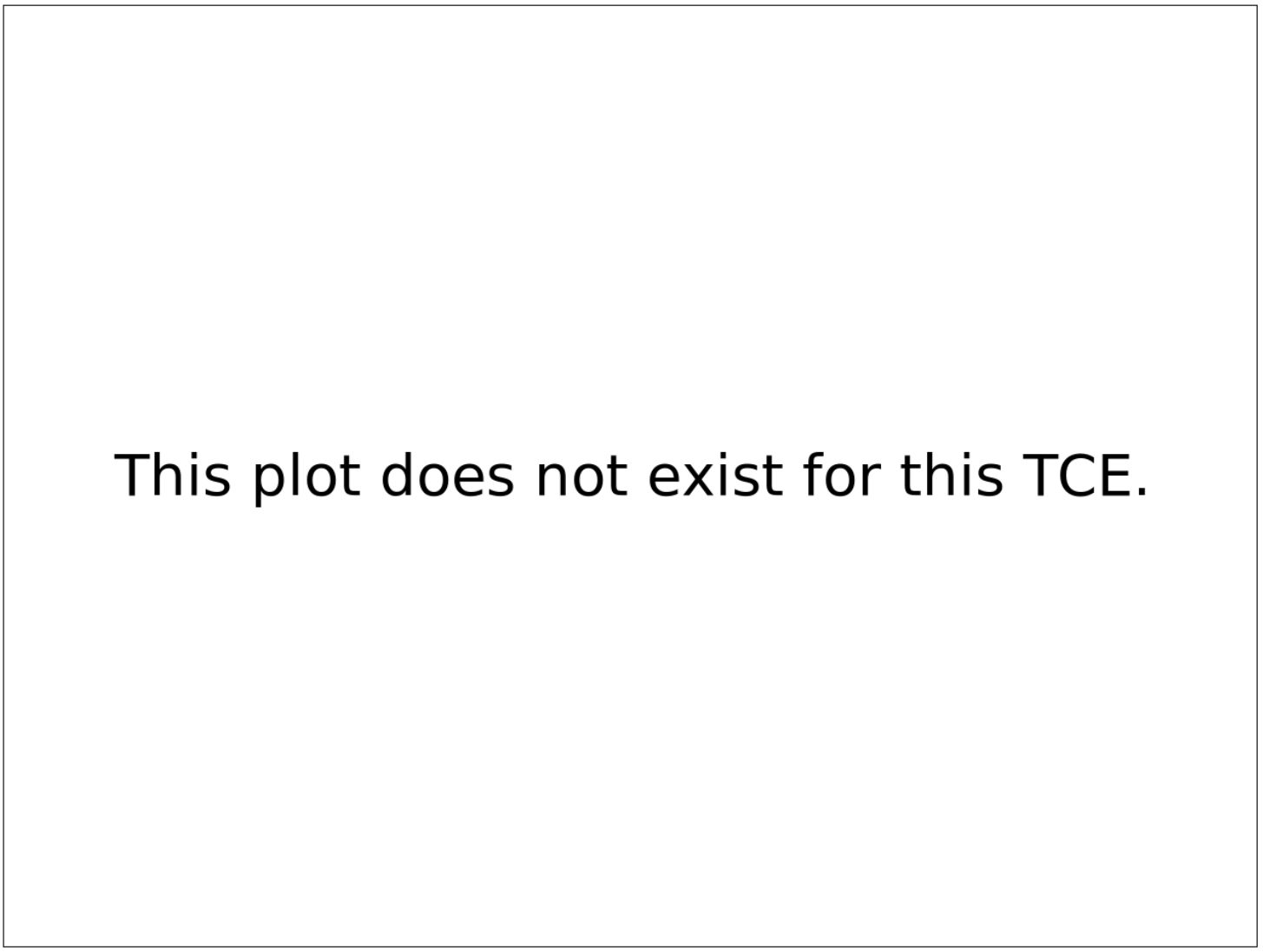



PDC Quarter-Phased Transit Curves
TCE 005179328-05 P=321.707316 Days T0=141.046541 (BKJD)
Q1
Q2
Q3
Q4
Y0
Q5
Q6
Q7
Q8
Y1
Q9
Q10
Q11
Q12
Y2
Q13
Q14
Q15
Q16
Y3
Q17
Q18
Q19
Q20
Y4
S3
S0
S1
S2
All
-6.1
0
6.1
Phase (Hours)

DV Quarter-Phased Transit Curves

TCE 005179328-05 P=321.707316 Days T_0=141.046541 (BKJD)

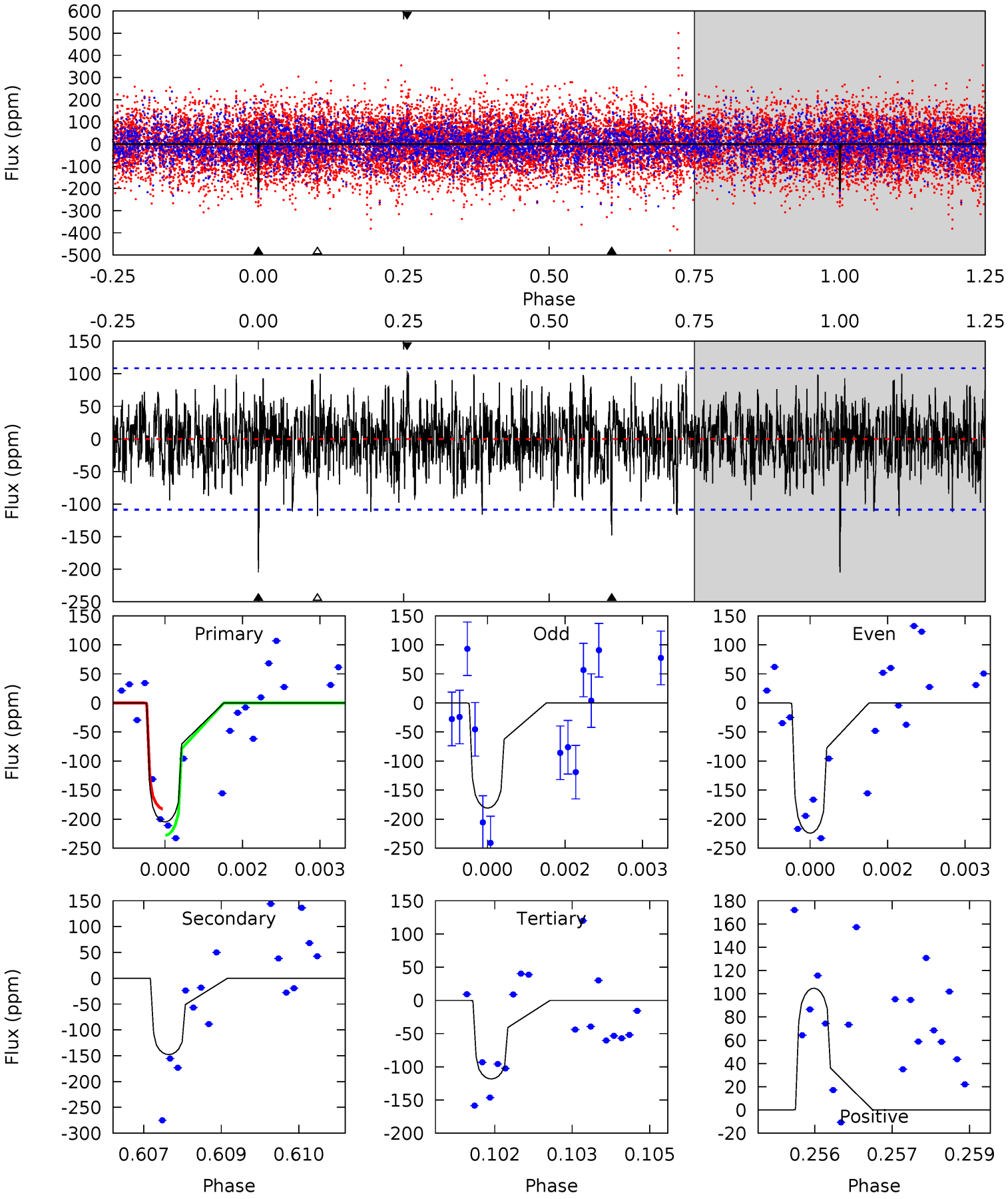



This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

005179328-05, P = 321.707316 Days, E = 141.046541 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	7.31	5.85	5.18	5.37	3.17	1.73	4.28	4.95	1.46	2.13	1.06	0.54	0.34	1.12



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 005179328

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6762^{+81}_{-81}	$4.077^{+0.143}_{-0.117}$	$-0.020^{+0.150}_{-0.150}$	$1.818^{+0.307}_{-0.341}$	$1.444^{+0.115}_{-0.115}$	$0.338^{+0.242}_{-0.122}$
	+1%/-1%	+4%/-3%	+750%/-750%	+17%/-19%	+8%/-8%	+72%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005179328-05 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-148±20	$3.49^{+2.58}_{-2.20}$	551^{+23}_{-28}	5579^{+4243}_{-1146}	7195^{+42561}_{-4829}
Alt.	N/A	N/A	N/A	N/A	N/A

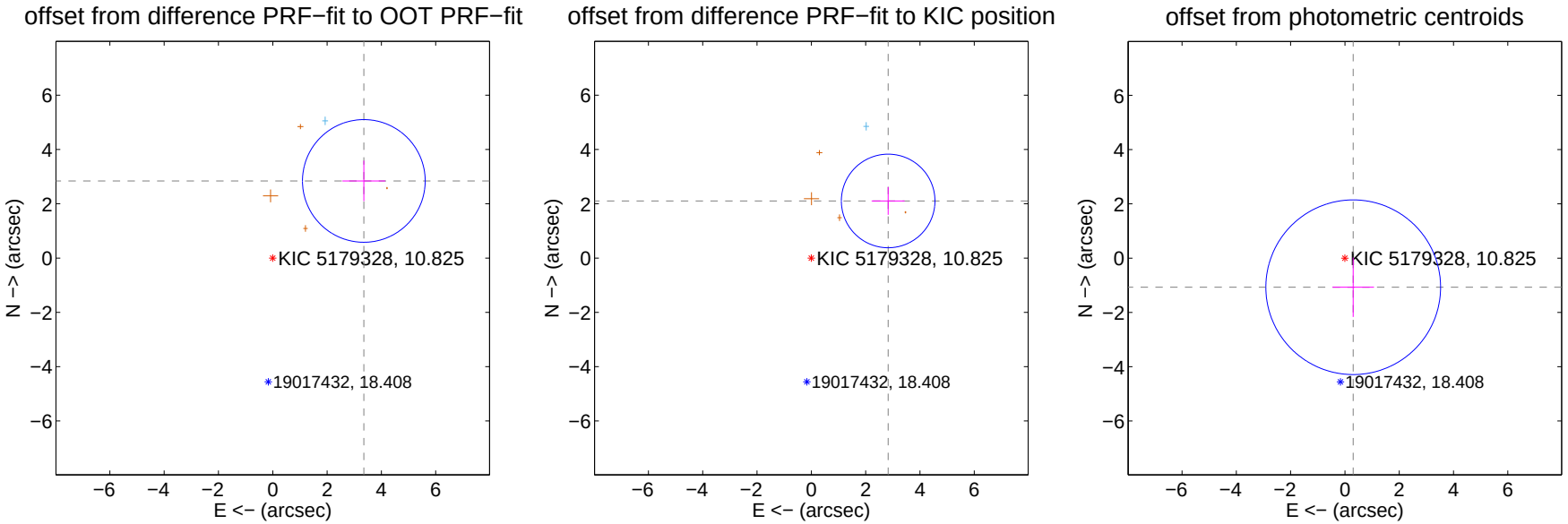
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

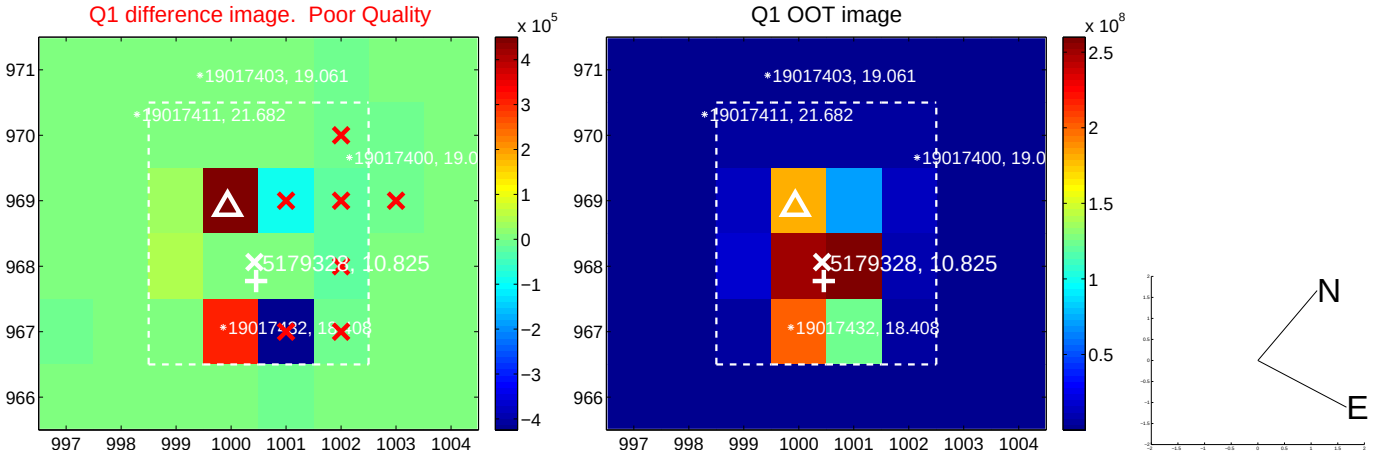
Supplemental centroid analysis for 005179328-05. Kepler magnitude: 10.82. Transit SNR 8.05
There are 1 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.43 arcsec

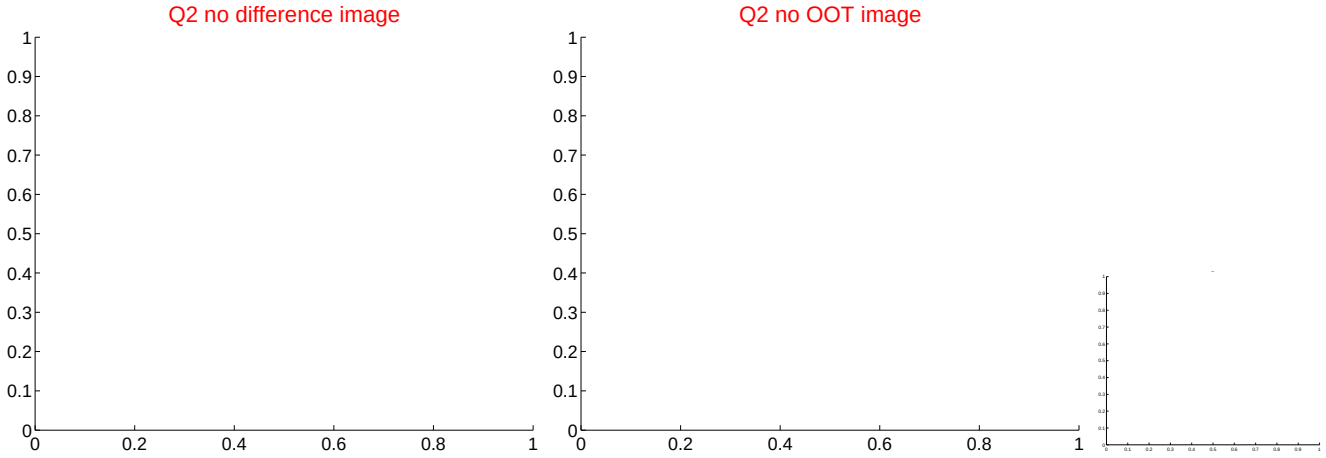
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.397 ± 0.753	5.84	-3.355 ± 0.789	2.842 ± 0.746
PRF-fit source offset from KIC position	3.526 ± 0.575	6.14	-2.830 ± 0.606	2.104 ± 0.512
photometric centroid source offset	1.12 ± 1.07	1.04	-0.31 ± 0.76	-1.07 ± 1.09

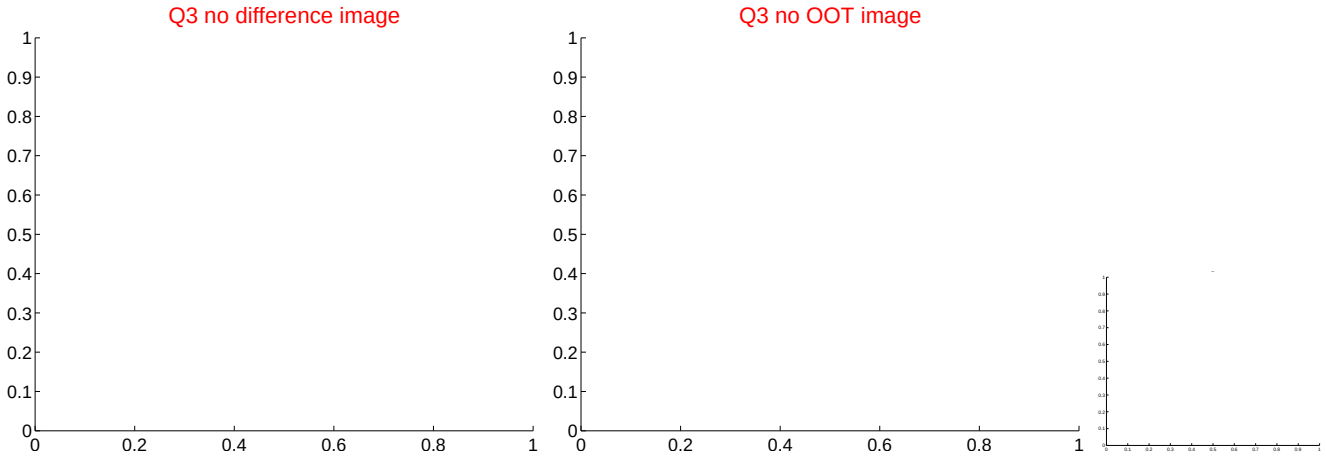


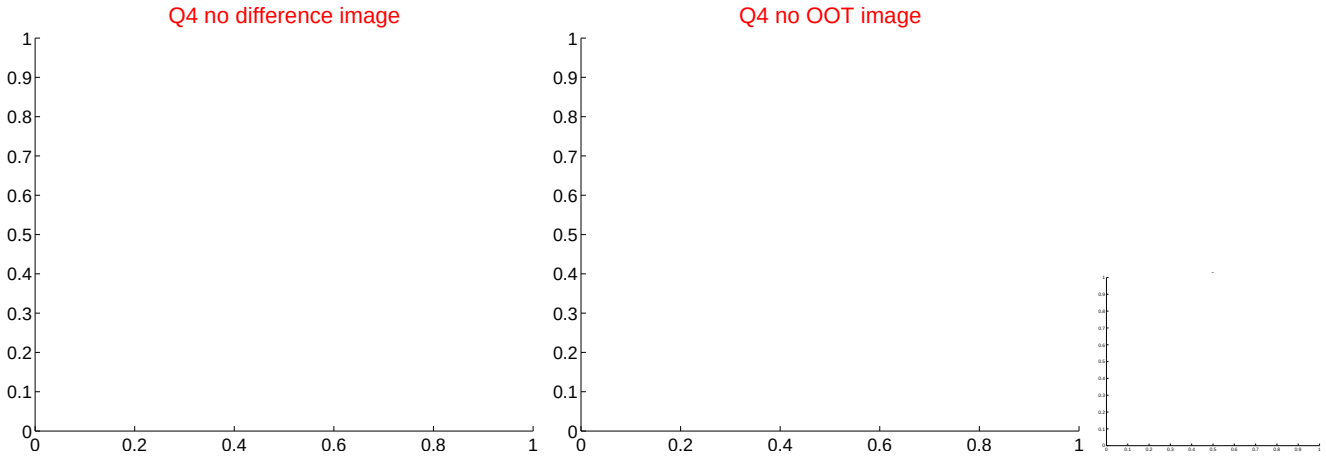
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs $> 15,000,000$ are from the UKIRT catalog.

white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

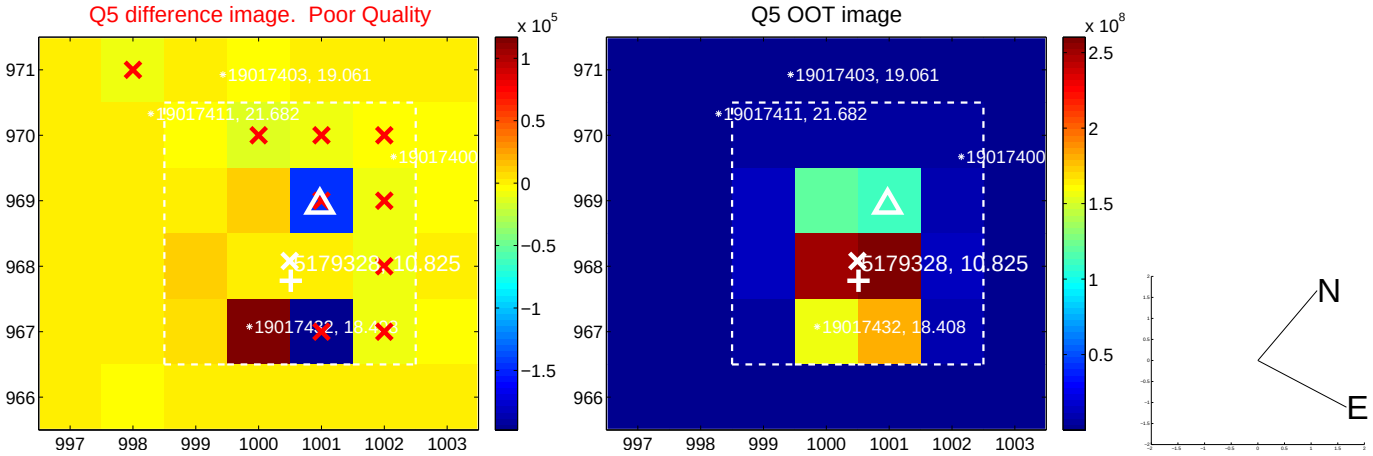


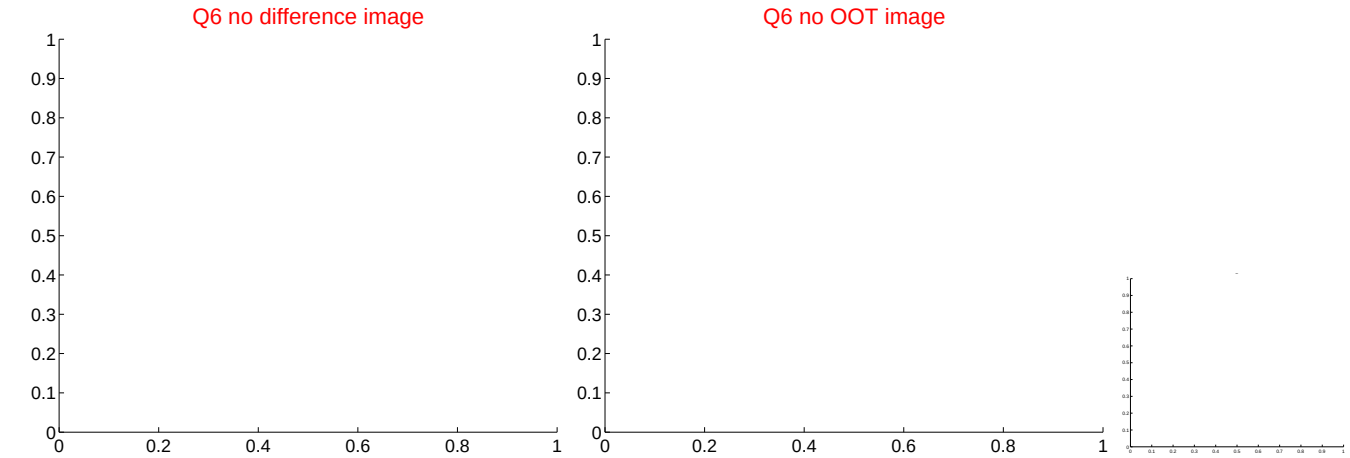


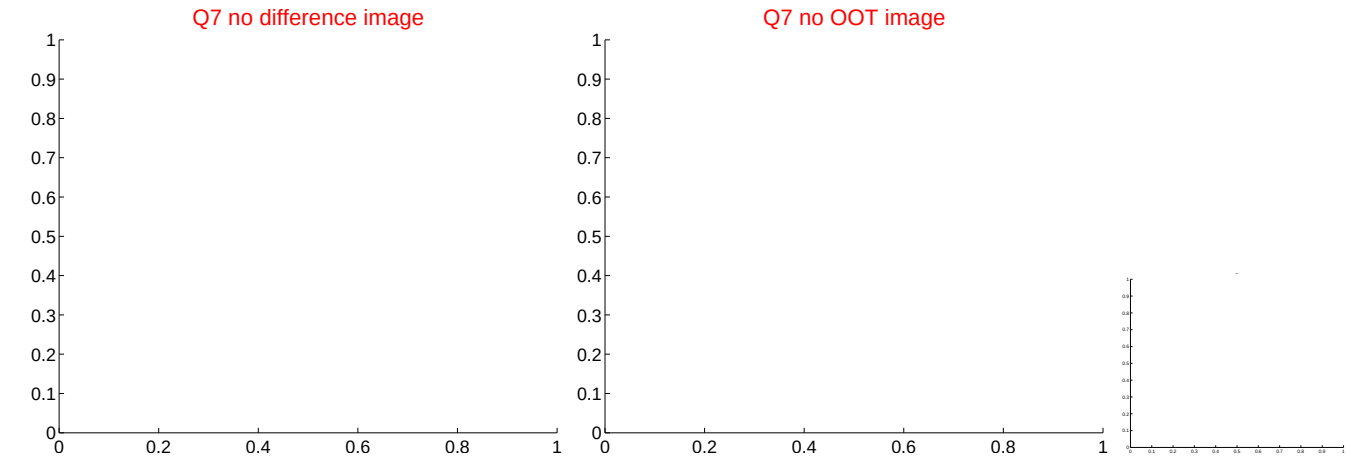


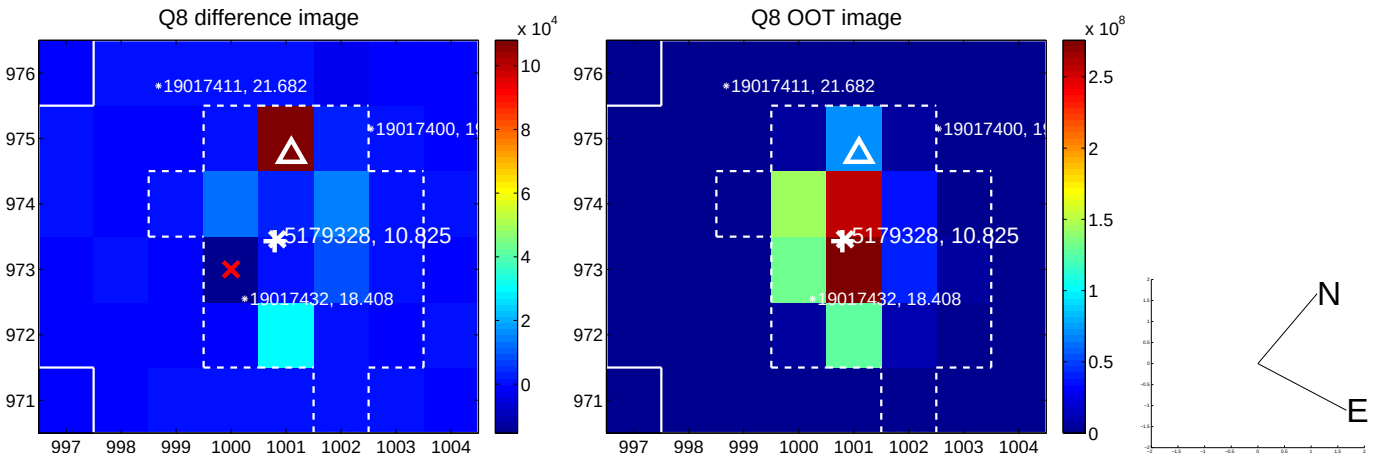


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

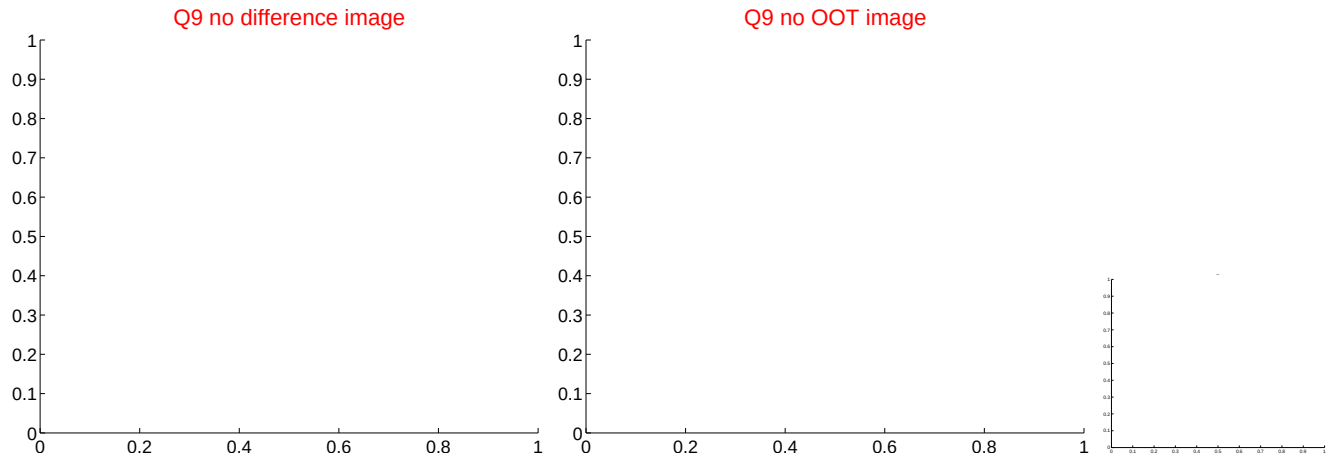


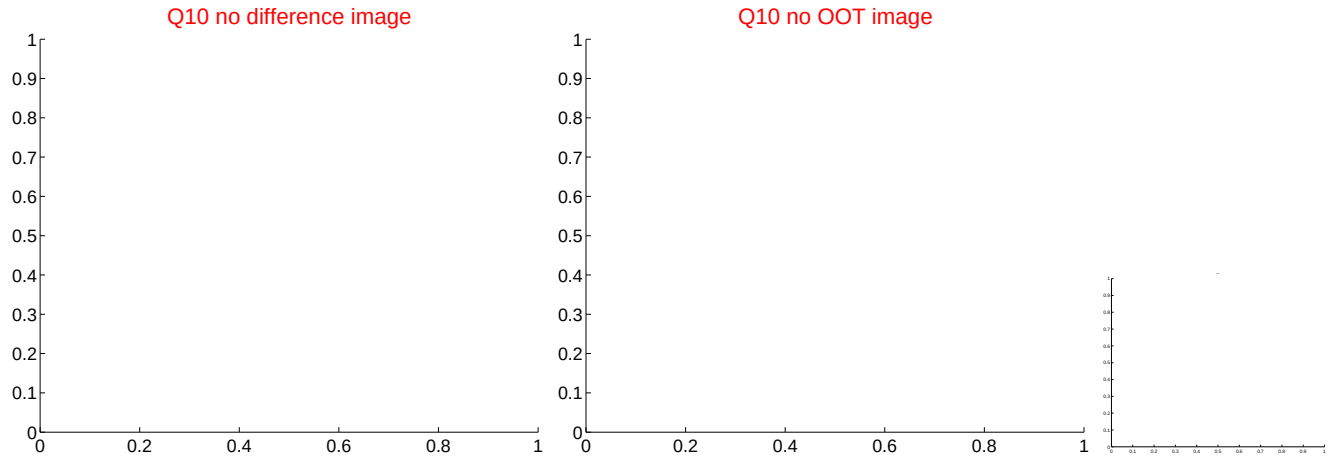


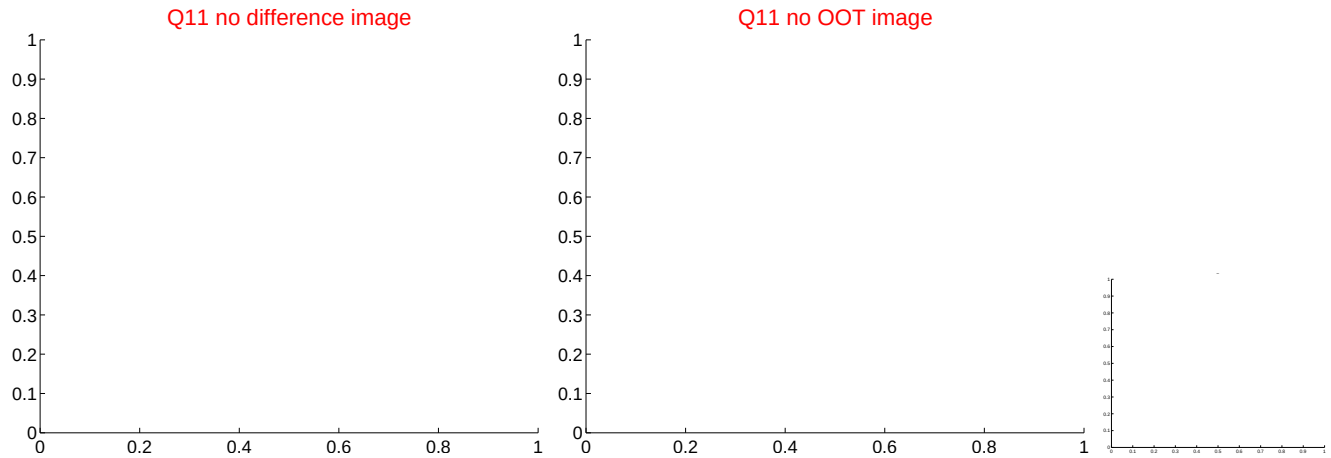


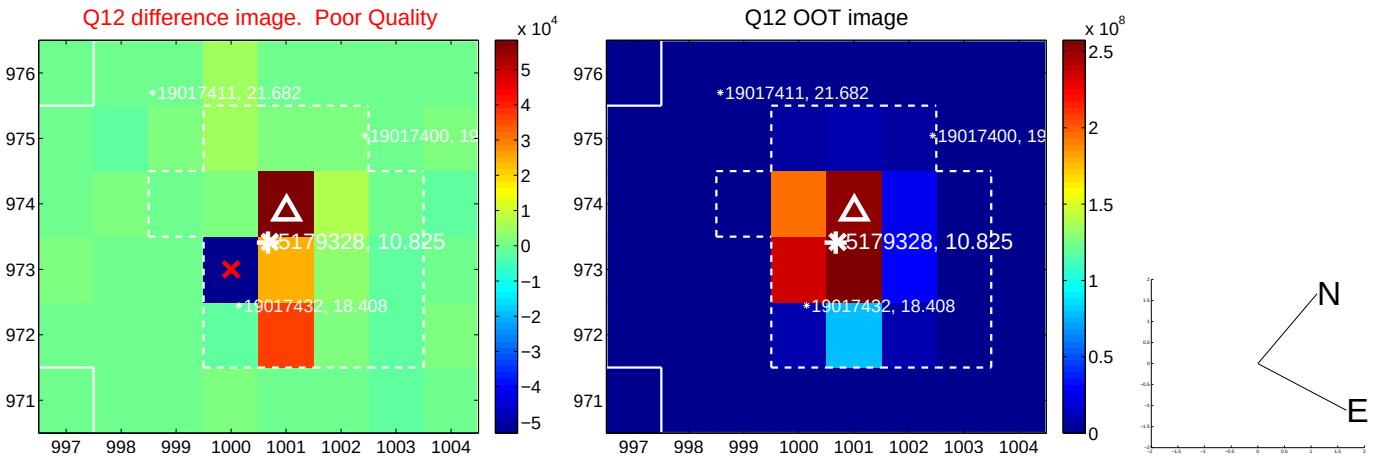


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

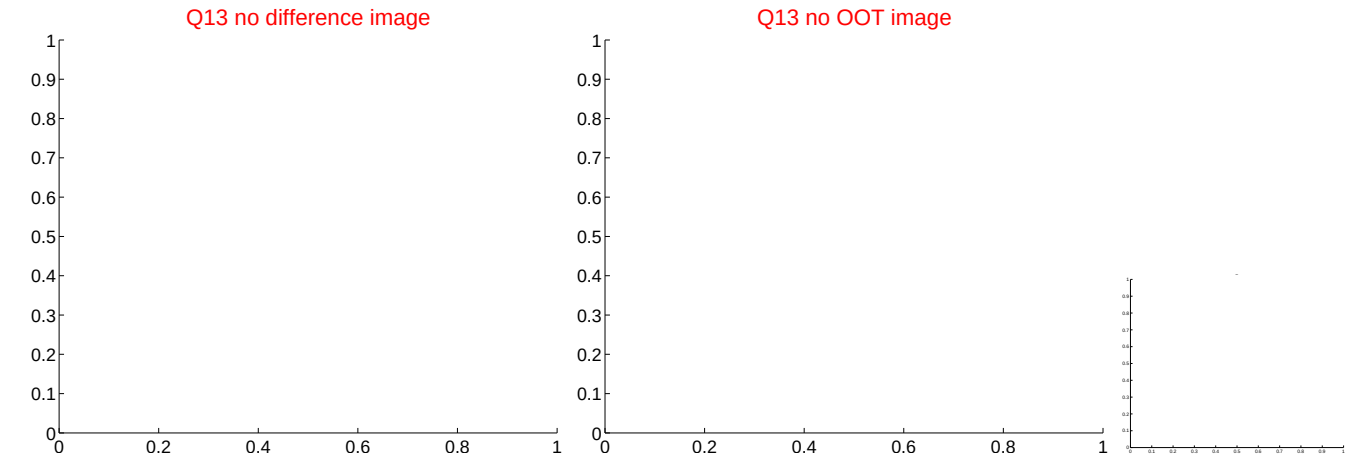


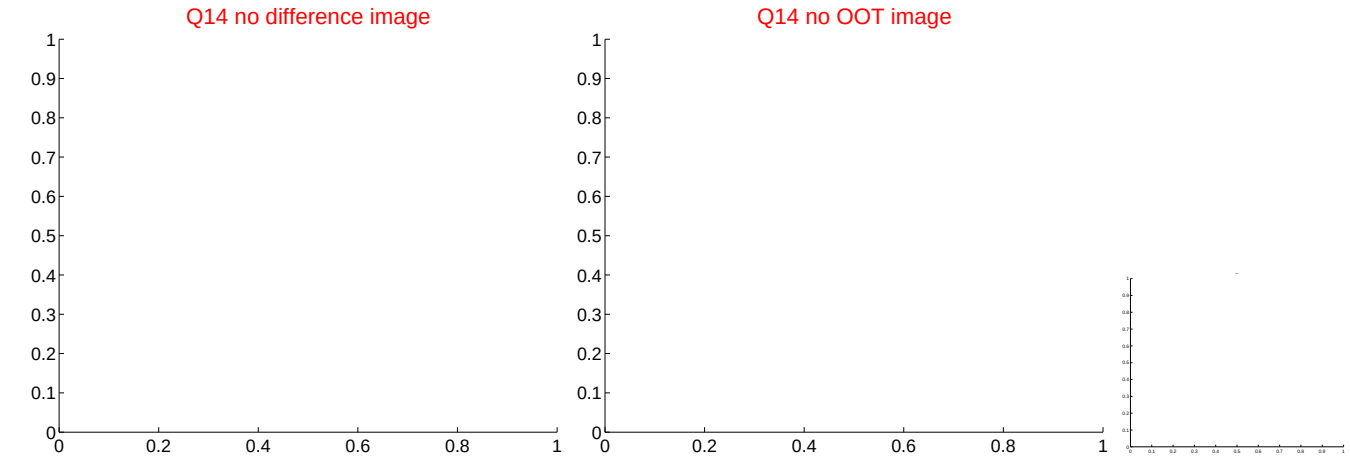


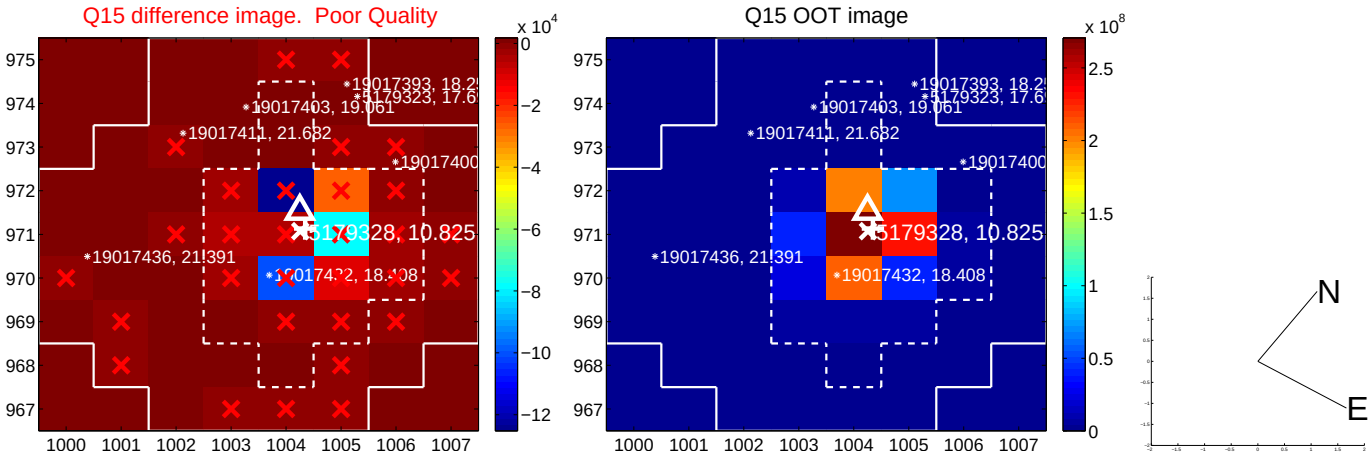


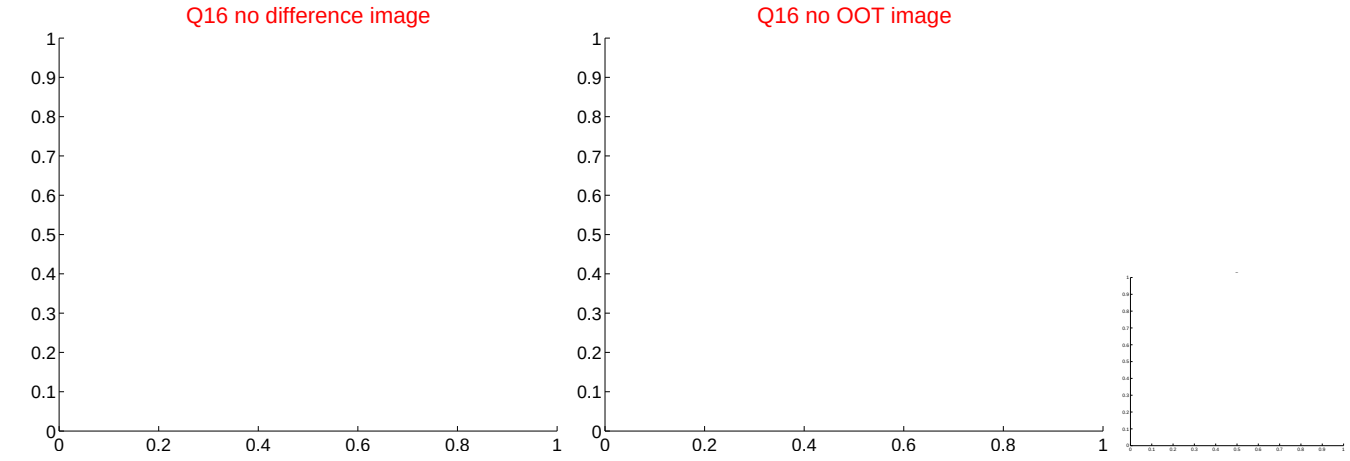


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

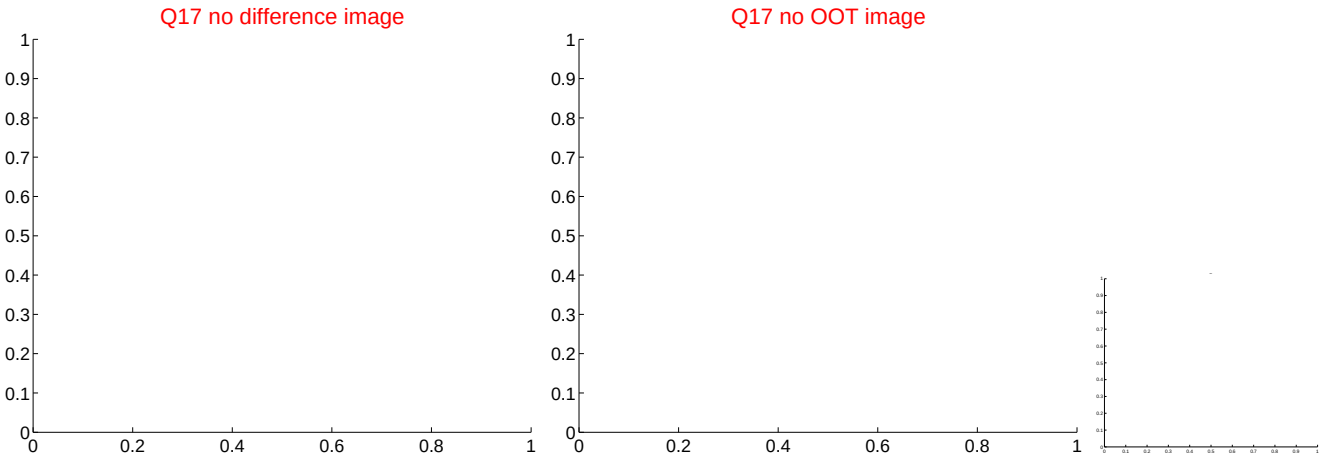


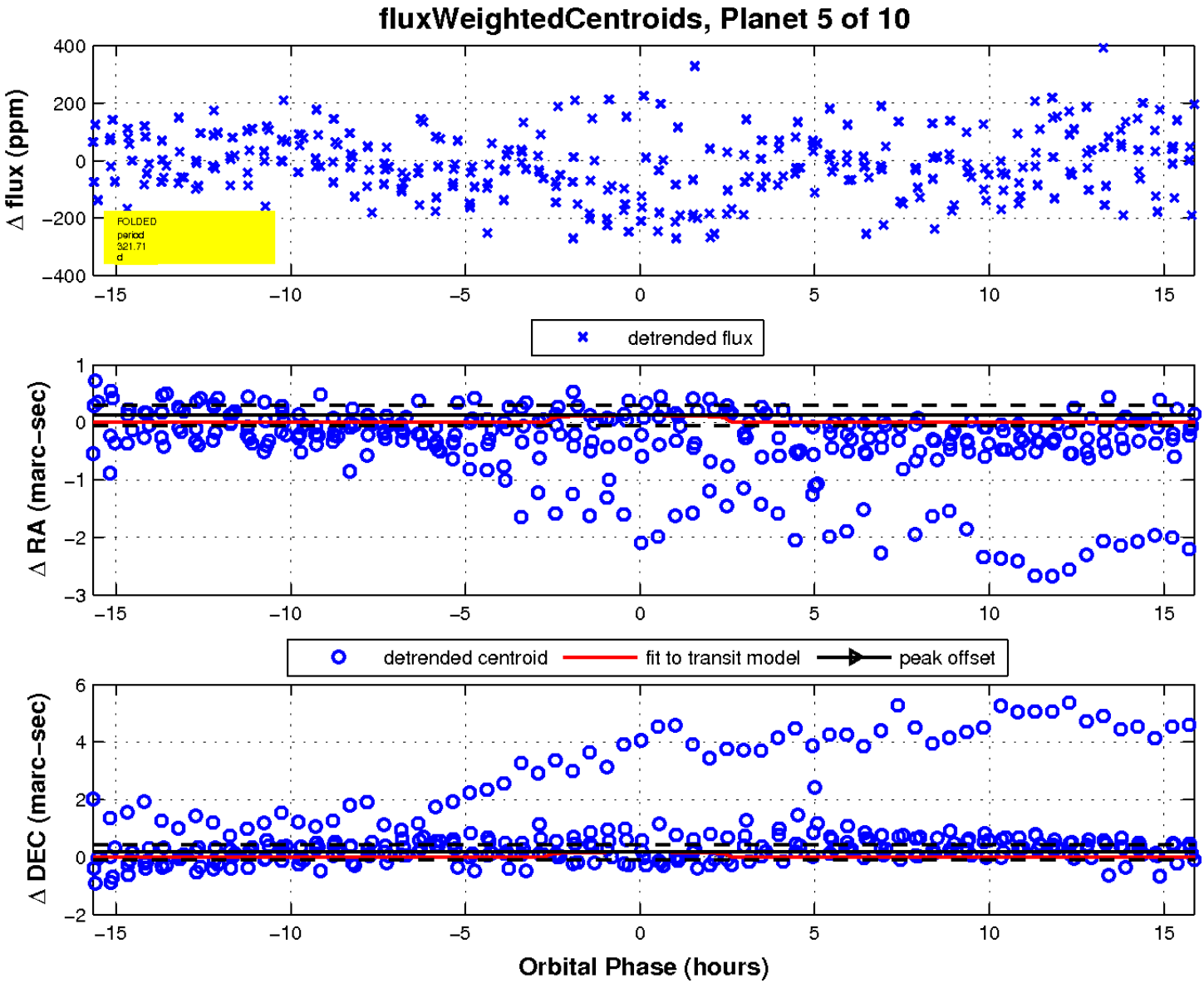




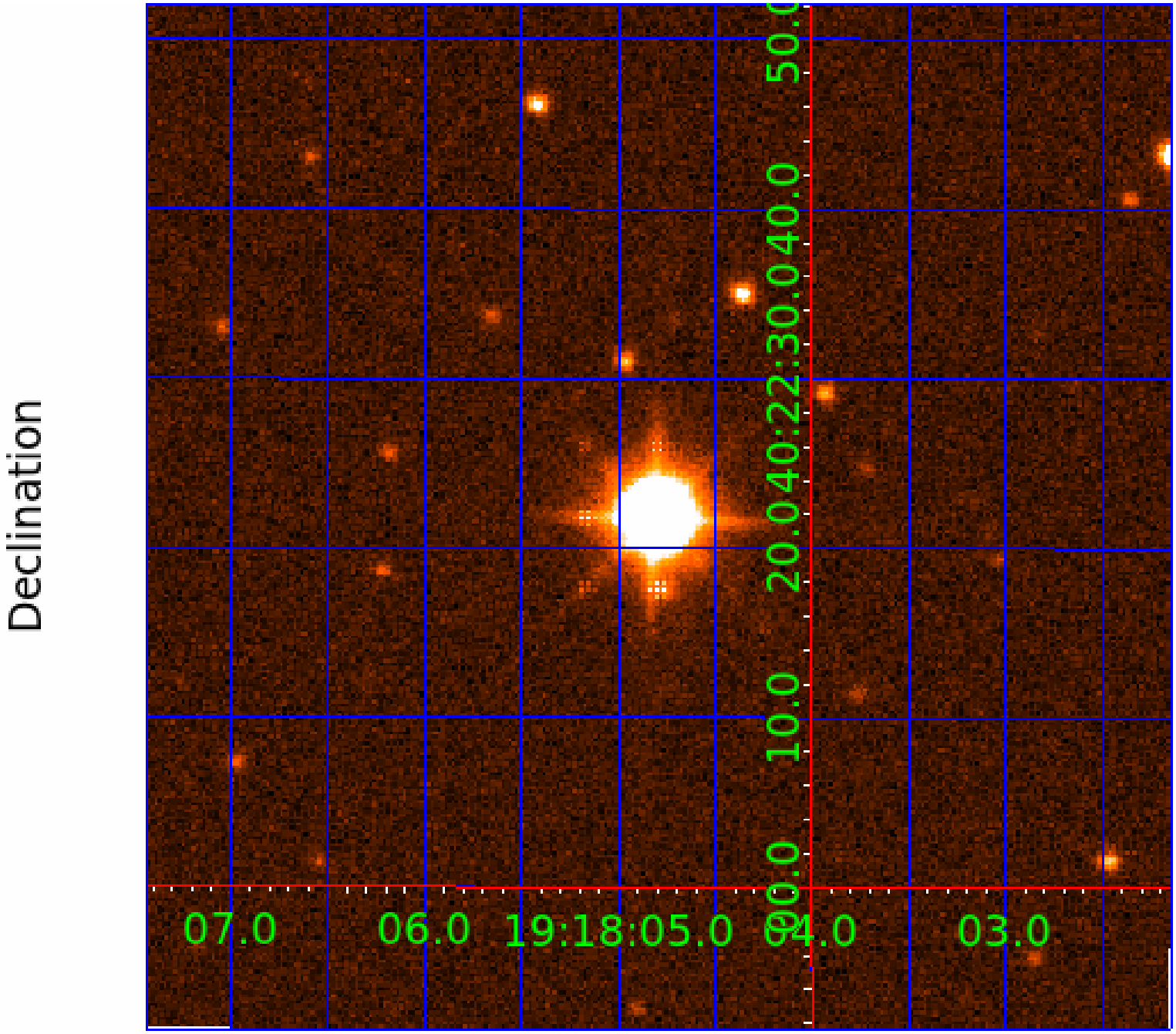


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image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04.0
03.0

KIC 005179328

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_\star$ ($R_\odot$)	$T_\star$ (K)	R_p ($R_\oplus$)	S_p ($S_\oplus$)
005179328-01	OBS	No	0.670370	131.764741	8.2	4.033	8.9	6.8	1.82	6762	0.60	21602.52
005179328-02	OBS	No	108.777871	185.898559	134.5	11.798	8.4	7.9	1.82	6762	2.36	24.41
005179328-04	OBS	No	50.596736	179.377582	7.5	0.919	9.0	0.3	1.82	6762	0.58	67.73
005179328-05	OBS	No	321.707316	141.046541	229.4	5.303	8.6	8.1	1.82	6762	3.00	5.75
005179328-06	OBS	No	102.672857	201.159806	177.8	2.224	8.2	8.7	1.82	6762	2.73	26.36
005179328-07	OBS	No	44.423528	165.932506	153.8	1.359	9.2	8.0	1.82	6762	2.58	80.56
005179328-08	OBS	No	31.414157	133.679706	116.3	2.102	8.4	9.1	1.82	6762	2.27	127.87
005179328-09	OBS	No	77.609623	148.121983	124.0	4.261	8.7	7.2	1.82	6762	2.30	38.29
005179328-10	OBS	No	125.588996	139.259222	156.4	9.832	8.1	8.6	1.82	6762	2.43	20.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005179328-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
005179328-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_SATURATED
005179328-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_SATURATED
005179328-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

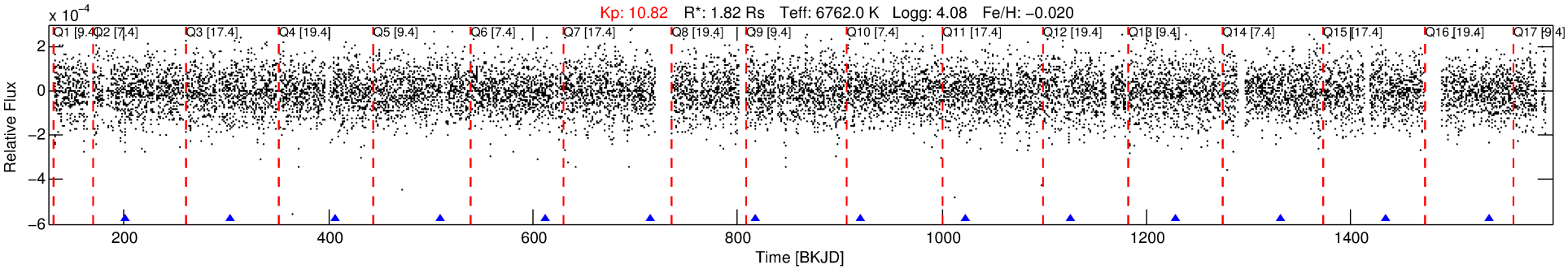
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

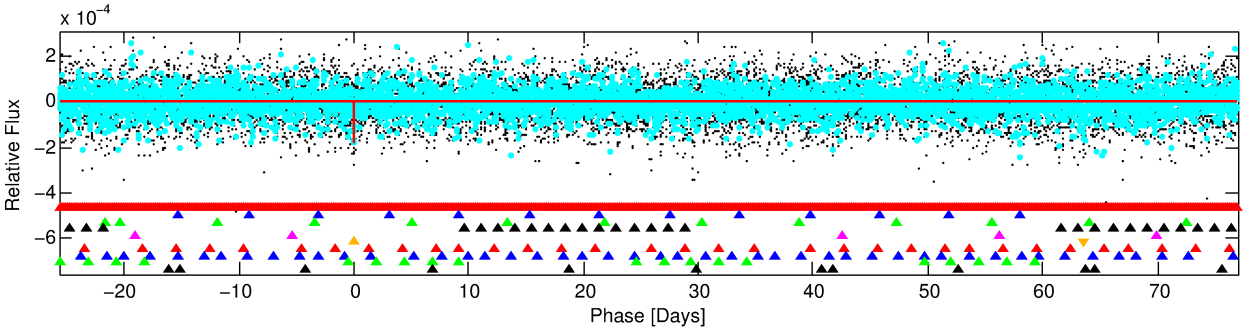
Ephemeris Match Information For 005179328-06

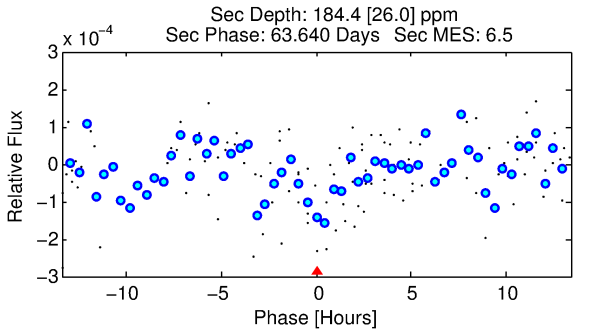
No Significant Match Found

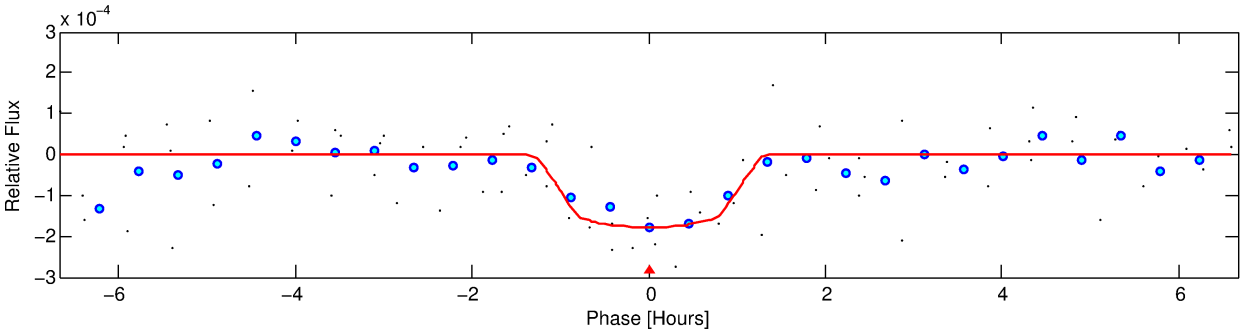
DV One-Page Summary

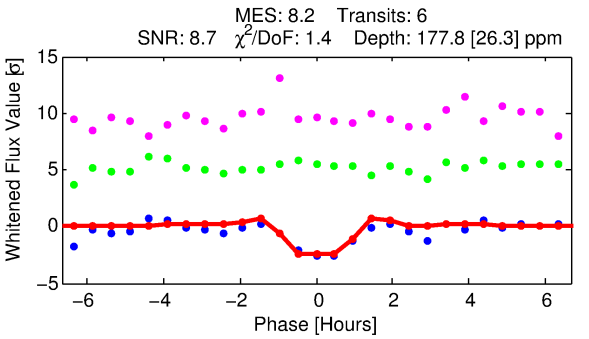
KIC: 5179328 Candidate: 6 of 10 Period: 102.673 d

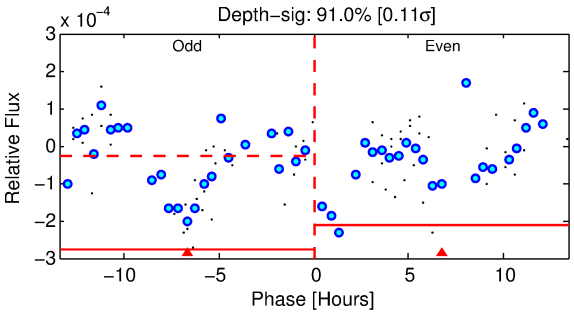


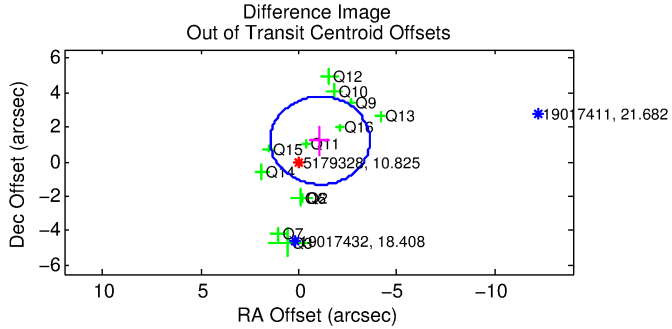












DV Fit Results:

Period = 102.67286 [0.00073] d
Epoch = 201.1598 [0.0058] BKJD
Rp/R* = 0.0137 [0.0138]
a/R* = 199.80 [1175.85]
b = 0.84 [2.07]

Seff = 26.36 [6.78]
Teq = 578 [37] K
Rp = 2.73 [2.78] Re
a = 0.4846 [0.0806] AU

Ag = 3203.74 [6495.63] [0.49σ]
Teffp = 6721 [3381] K [1.82σ]

DV Diagnostic Results:

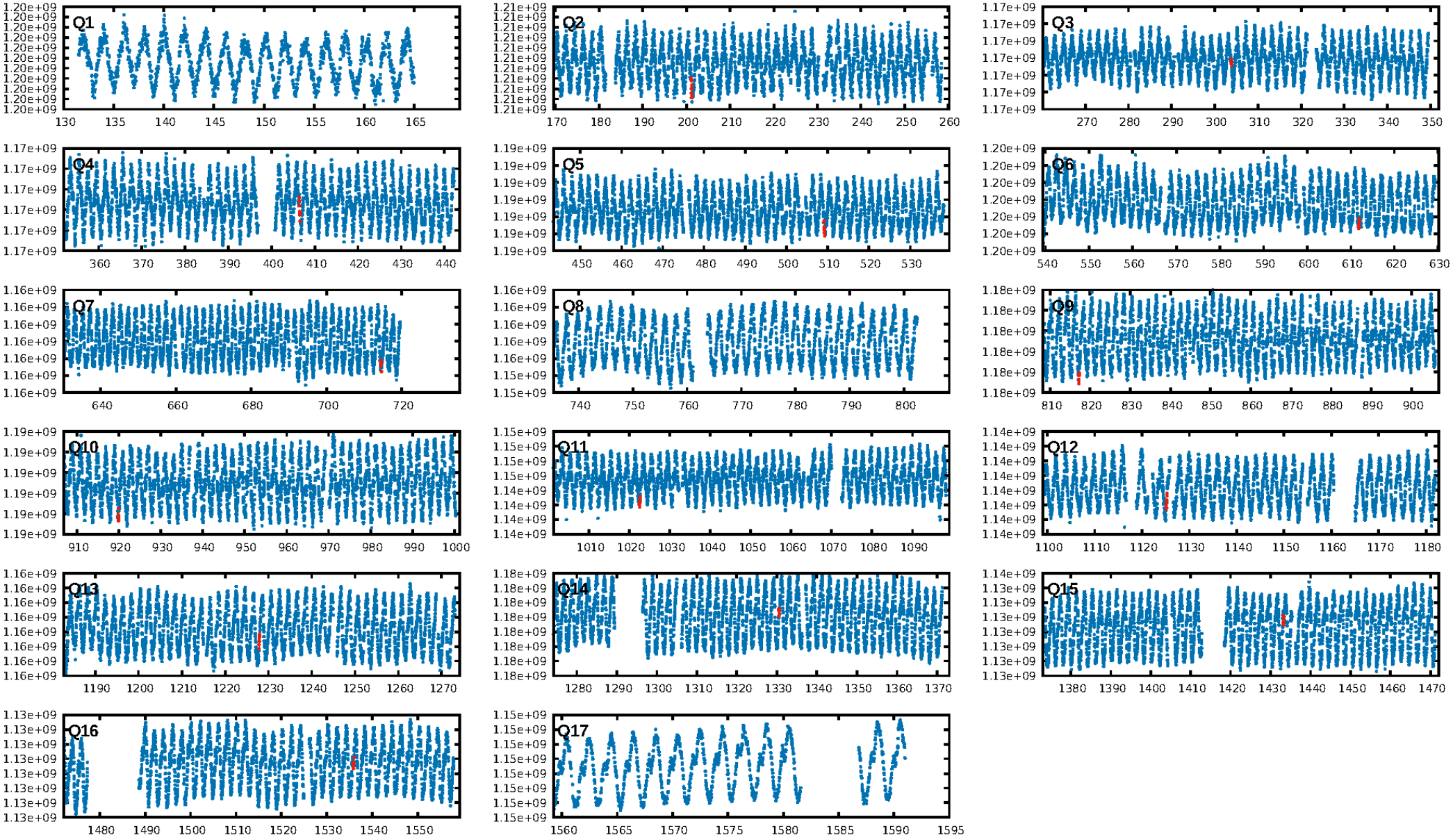
ShortPeriod−sig: 100.0% [125.15σ]
LongPeriod−sig: 100.0% [12.20σ]
ModelChiSquare2−sig: 11.3%
ModelChiSquareGof−sig: 99.3%
Bootstrap−pfa: N/A
RollingBand−fgt: 1.00 [6/6]
GhostDiagnostic−chr: 0.5215

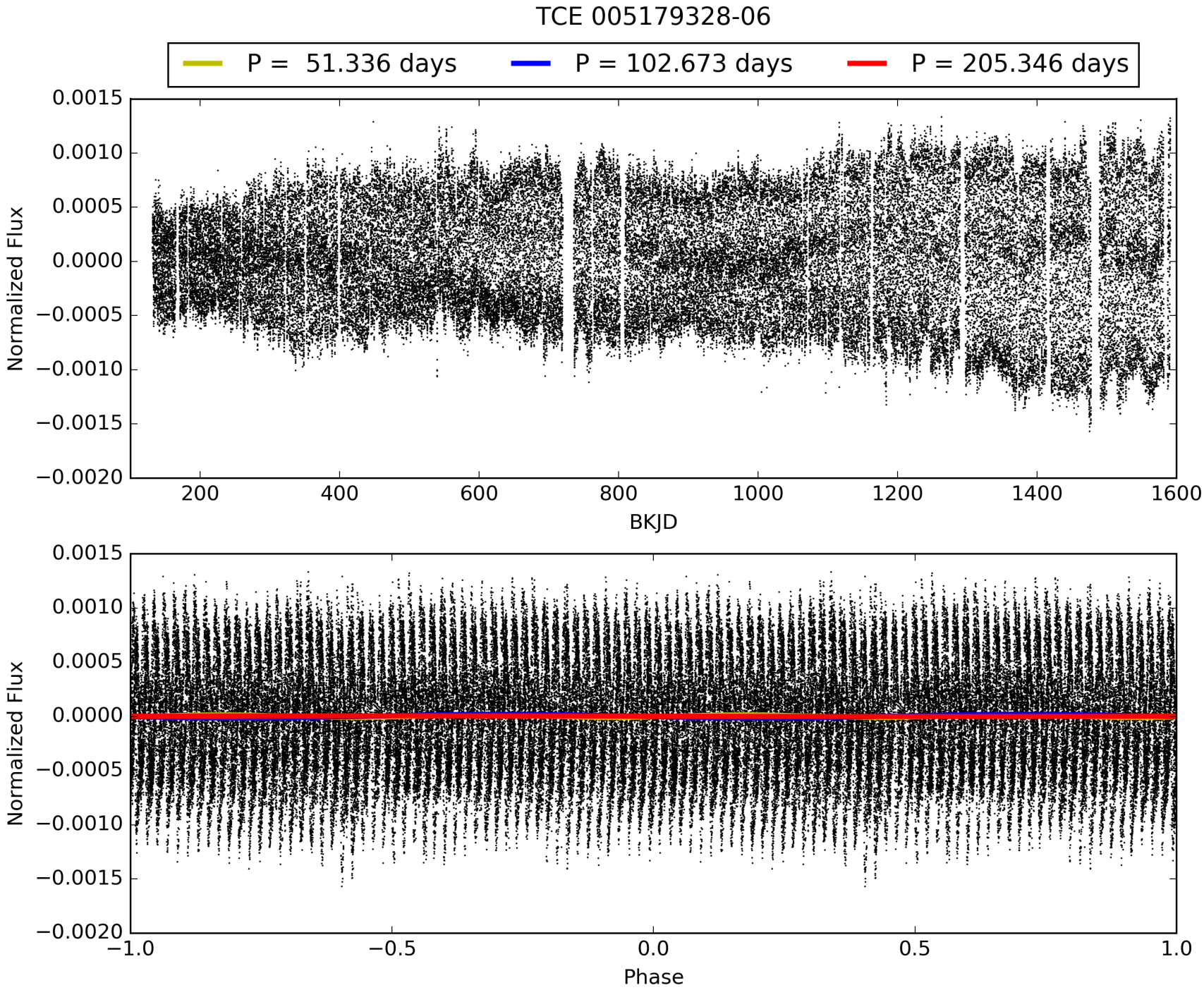
Centroid−sig: 46.3%
Centroid−so: 0.046 arcsec [0.09σ]
OotOffset−rm: 1.627 arcsec [1.92σ]
KicOffset−rm: 1.093 arcsec [1.09σ]
OotOffset−st: 4/4/2/2 [12]
KicOffset−st: 4/4/2/2 [12]
DiffImageQuality−fgm: 0.42 [5/12]
DiffImageOverlap−fno: 0.00 [0/14]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 −− Date Generated: 01−Feb−2016 20:02:41 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005179328-06, PDC Light Curves

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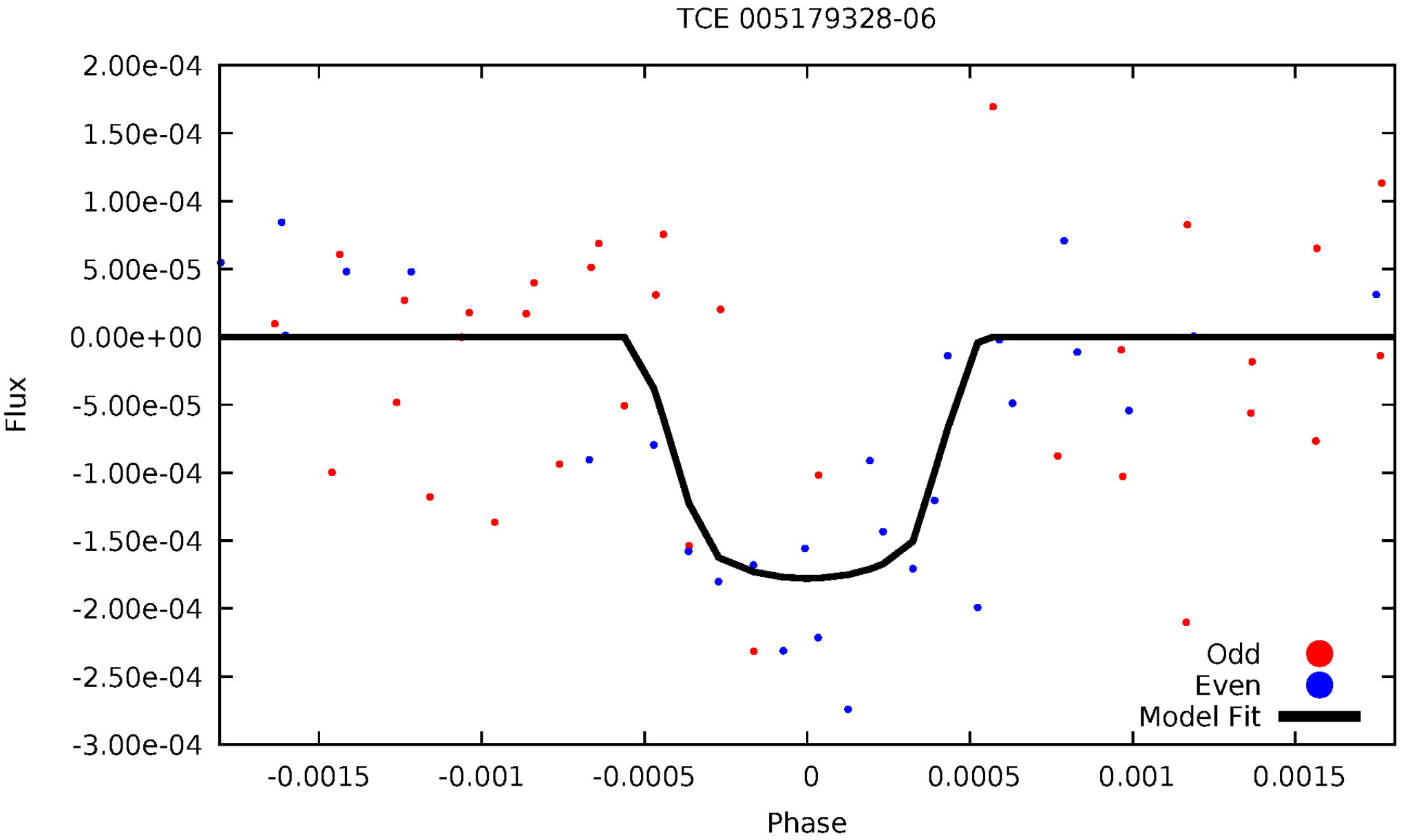
P = 51.336 days
P = 102.673 days
P = 205.346 days
Normalized Flux
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015
−0.0020
200
400
600
800
1000
1200
1400
1600
BKJD
Normalized Flux
−1.0
−0.5
0.0
0.5
1.0
Phase

DV Odd/Even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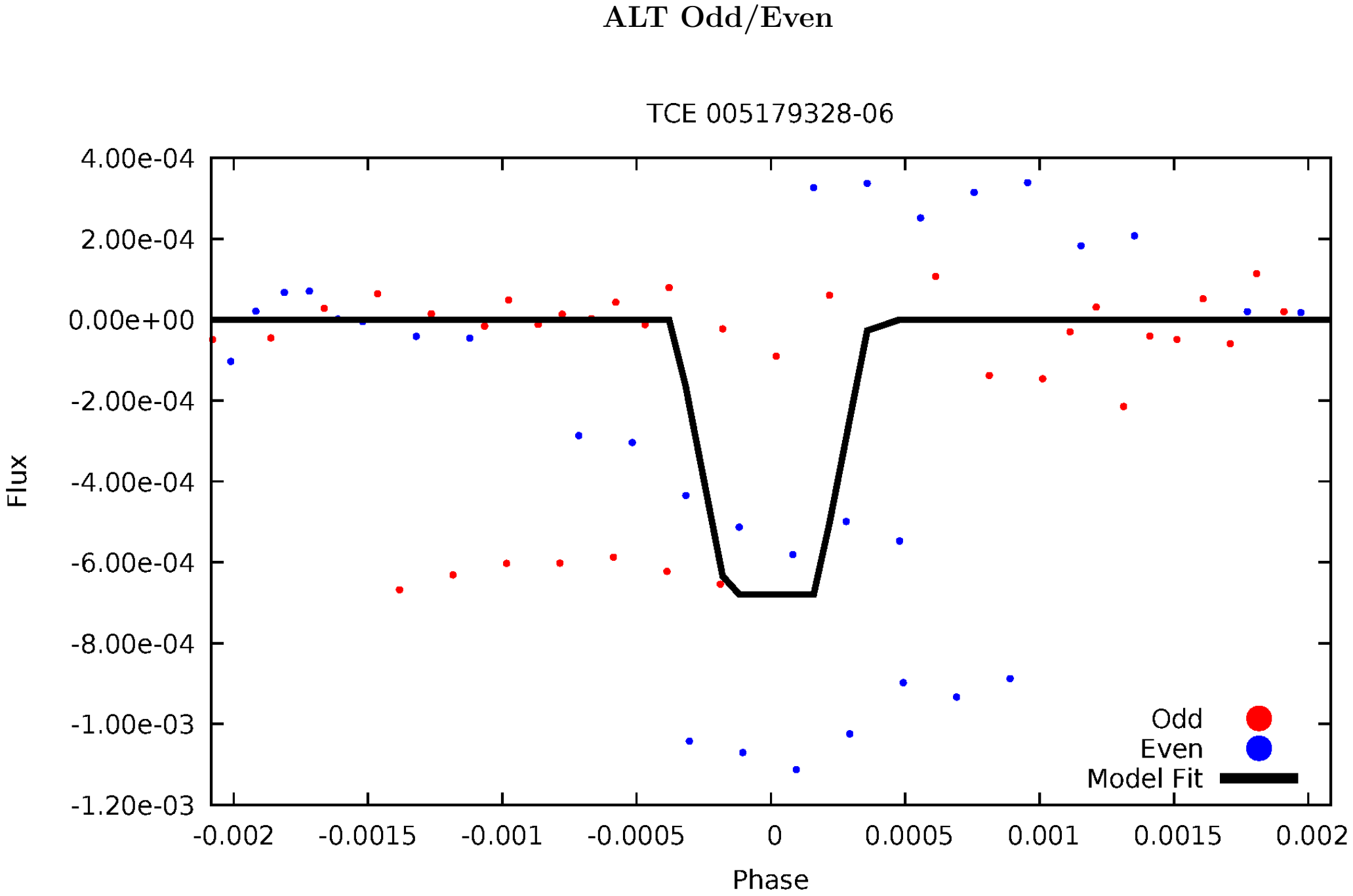
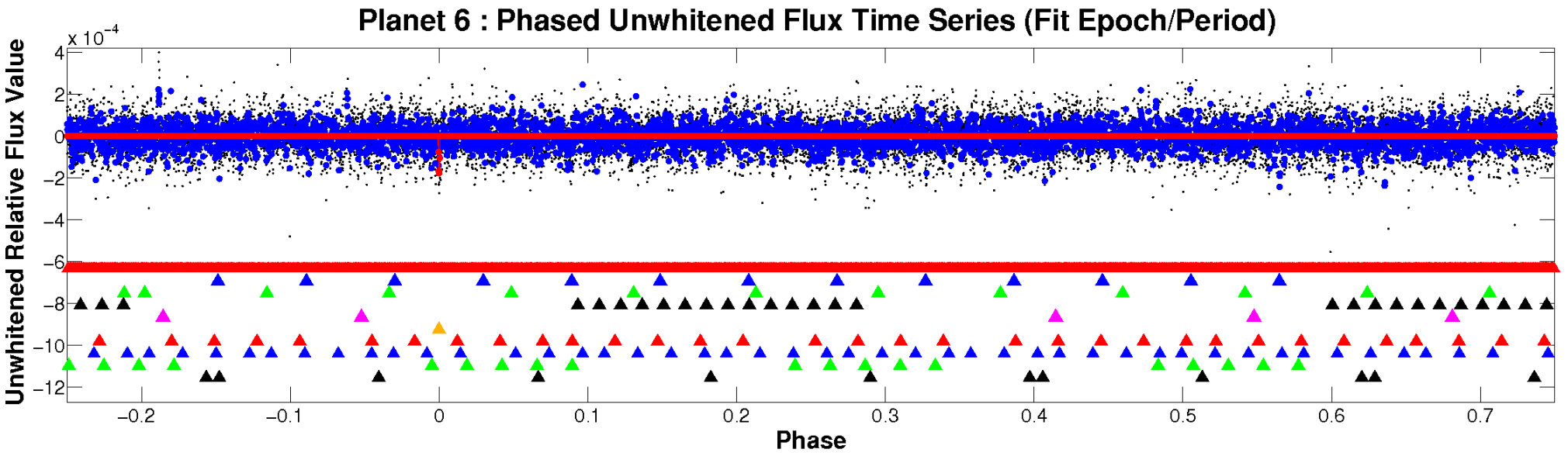
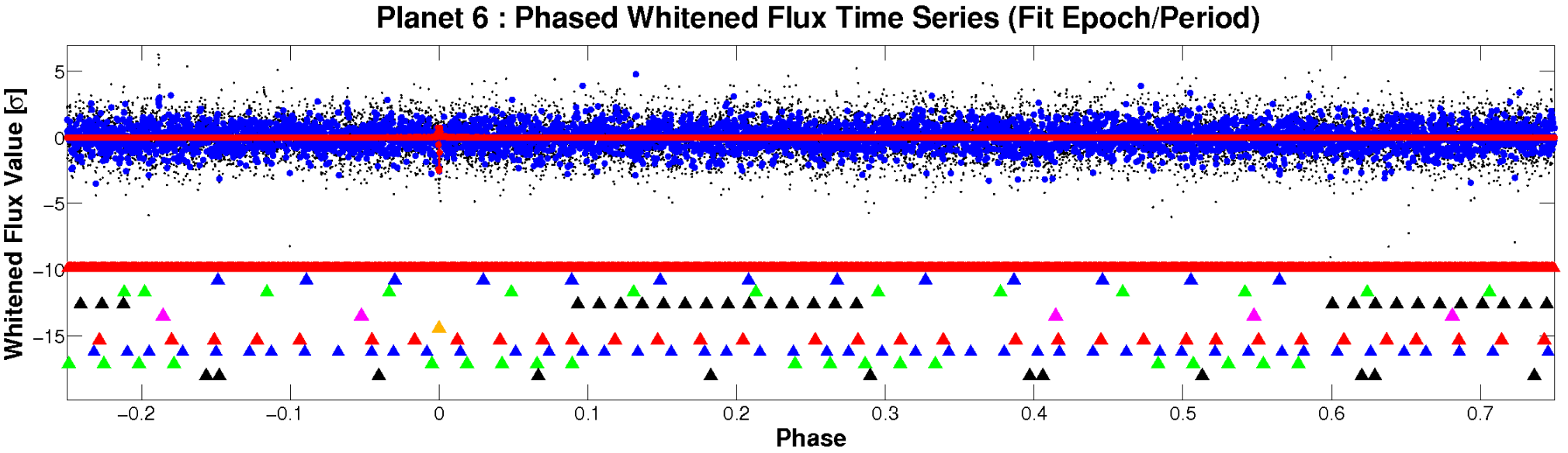
2.00e-04
1.50e-04
1.00e-04
5.00e-05
0.00e+00
-5.00e-05
-1.00e-04
-1.50e-04
-2.00e-04
-2.50e-04
-3.00e-04
Flux
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
Phase
Odd
Even
Model Fit


ALT Odd/Even
TCE 005179328-06
4.00e-04
2.00e-04
0.00e+00
-2.00e-04
-4.00e-04
-6.00e-04
-8.00e-04
-1.00e-03
-1.20e-03
Flux
-0.002
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
0.002
Phase
Odd
Even
Model Fit

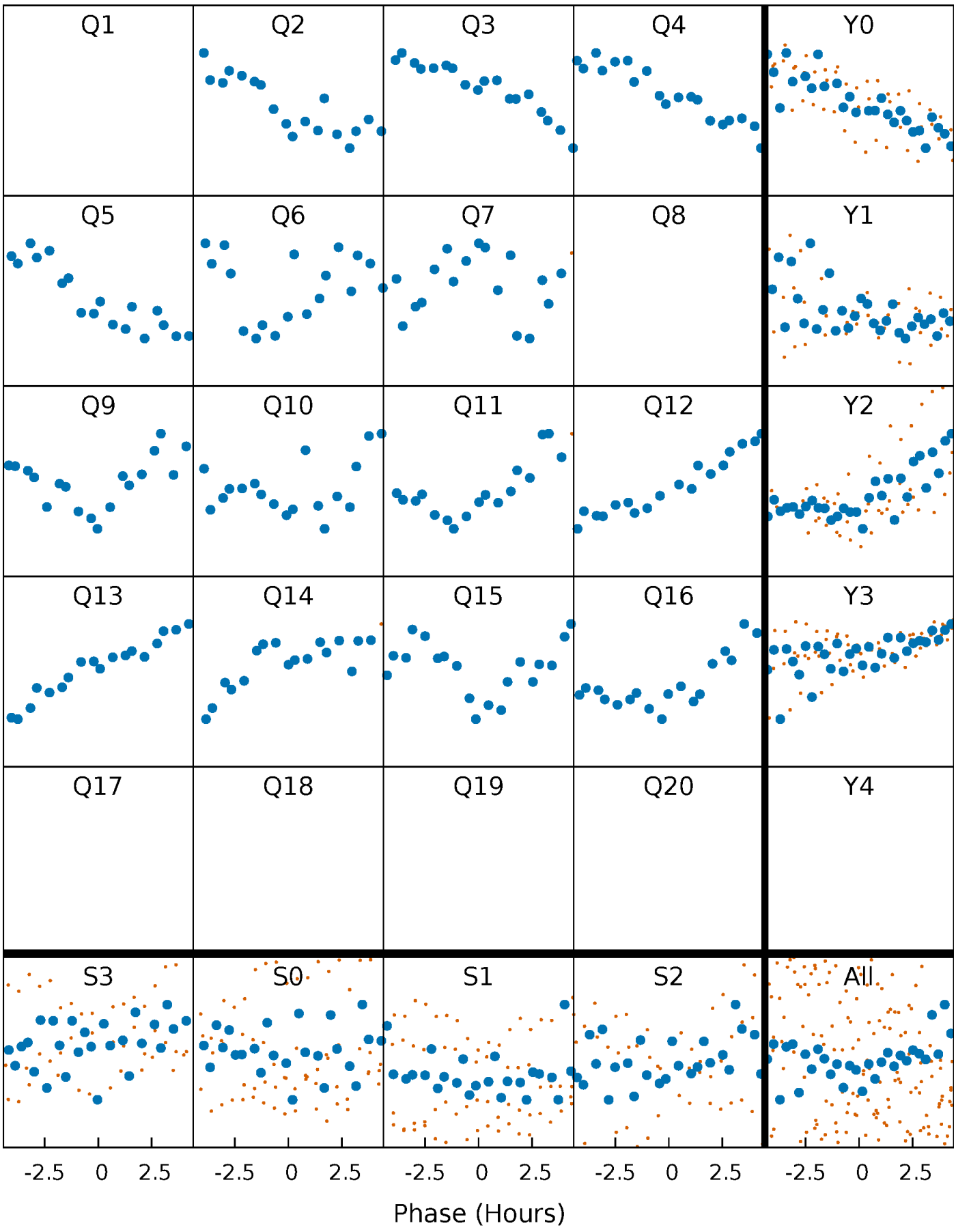
Non-Whitened Vs. Whitened Light Curve





PDC Quarter-Phased Transit Curves

TCE 005179328-06 P=102.672857 Days T_0=201.159806 (BKJD)



DV Quarter-Phased Transit Curves

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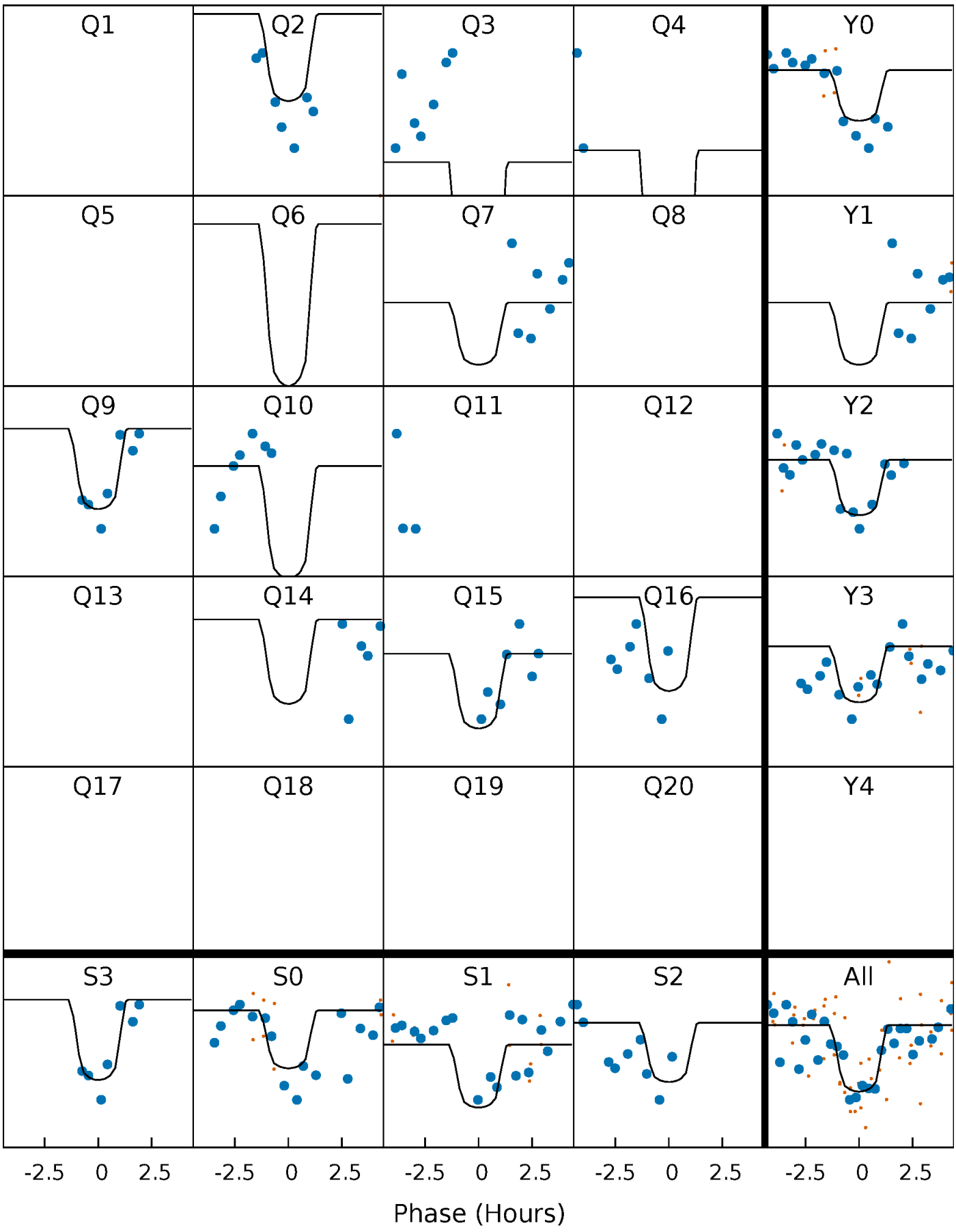

Alt. Detrend Quarter-Phased Transit Curves

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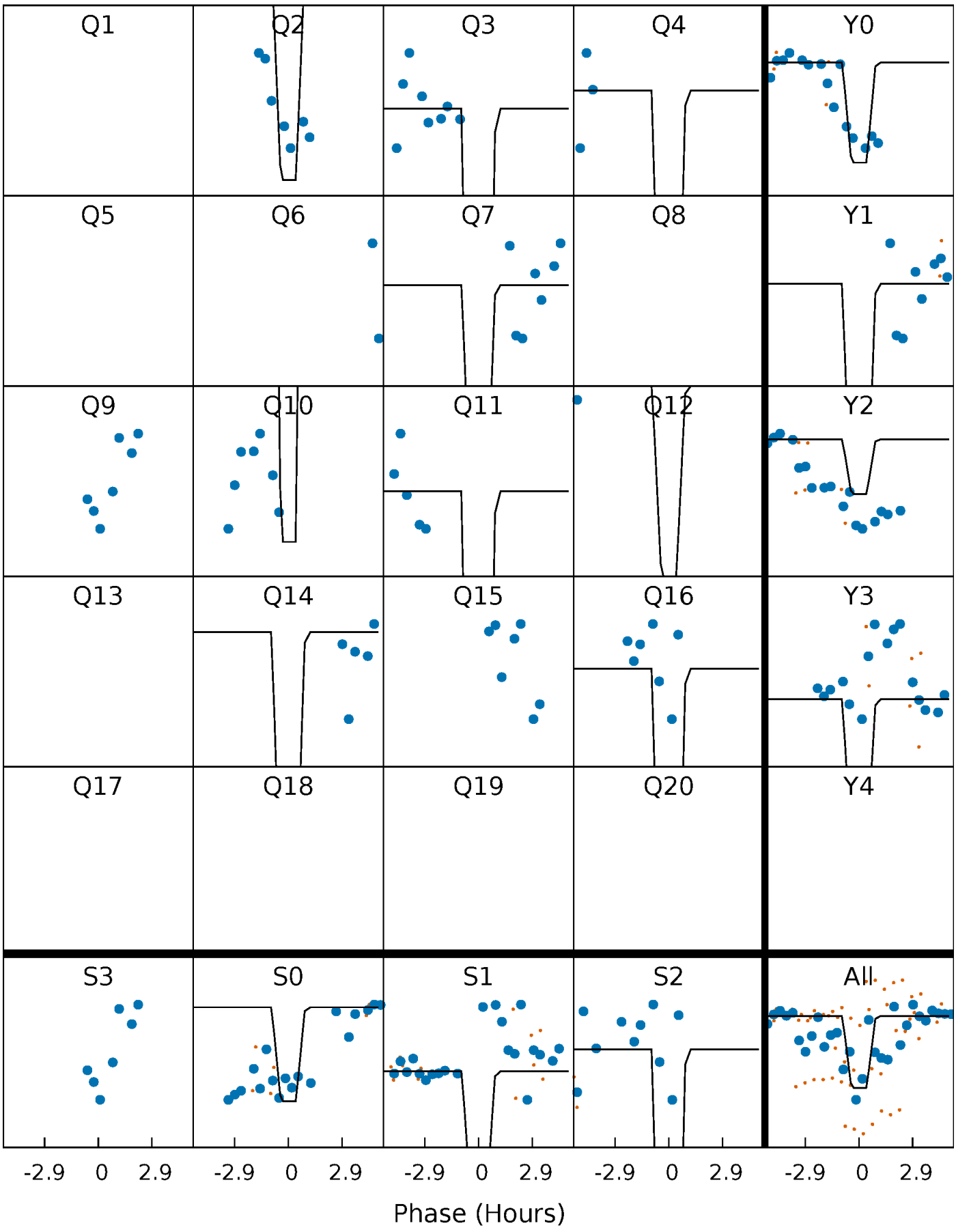
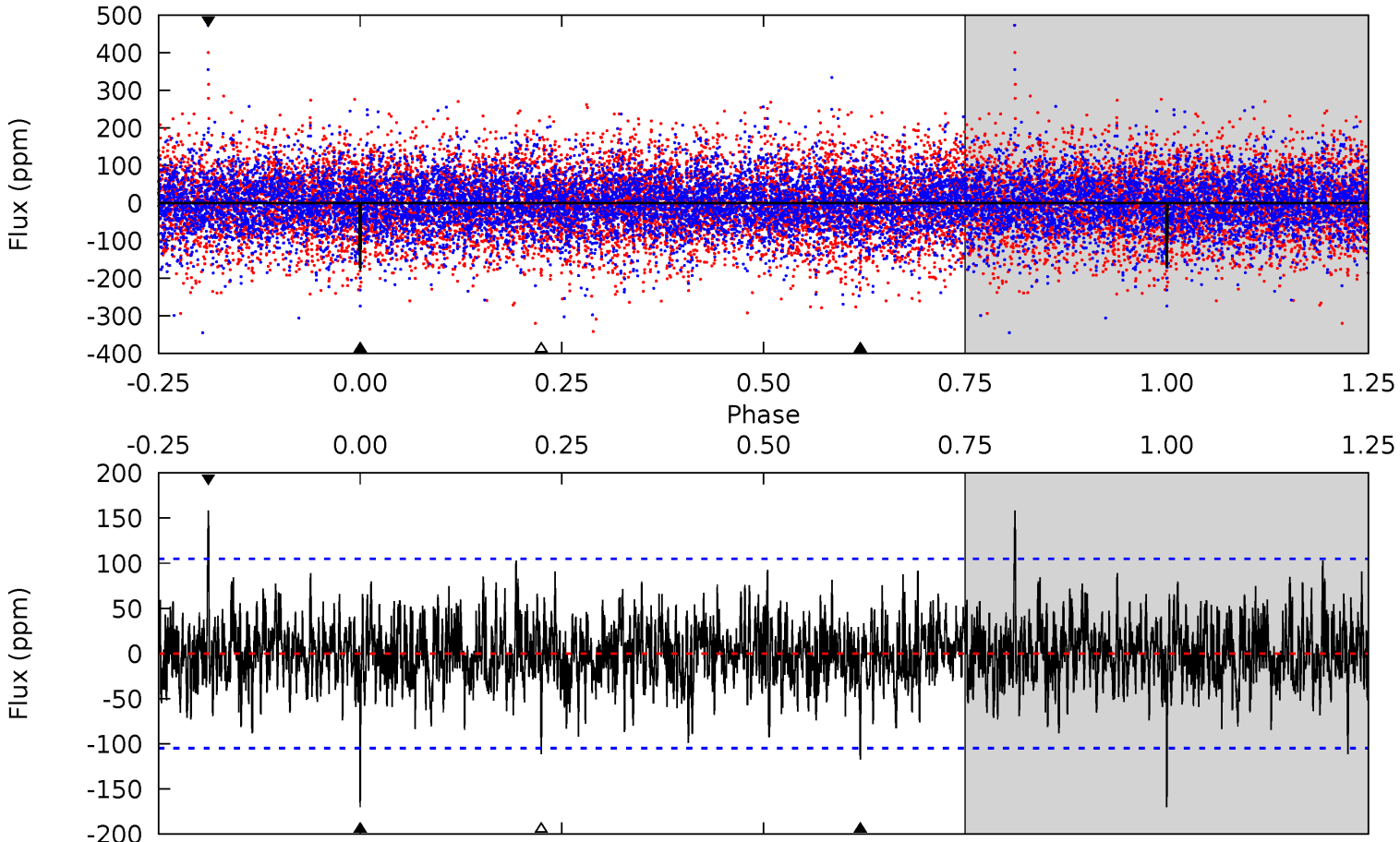
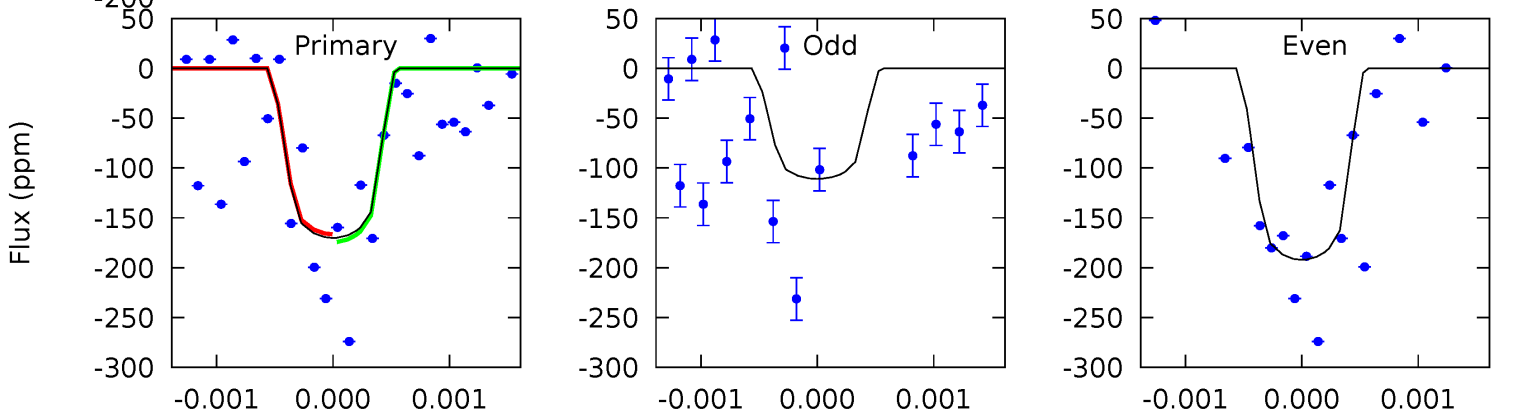


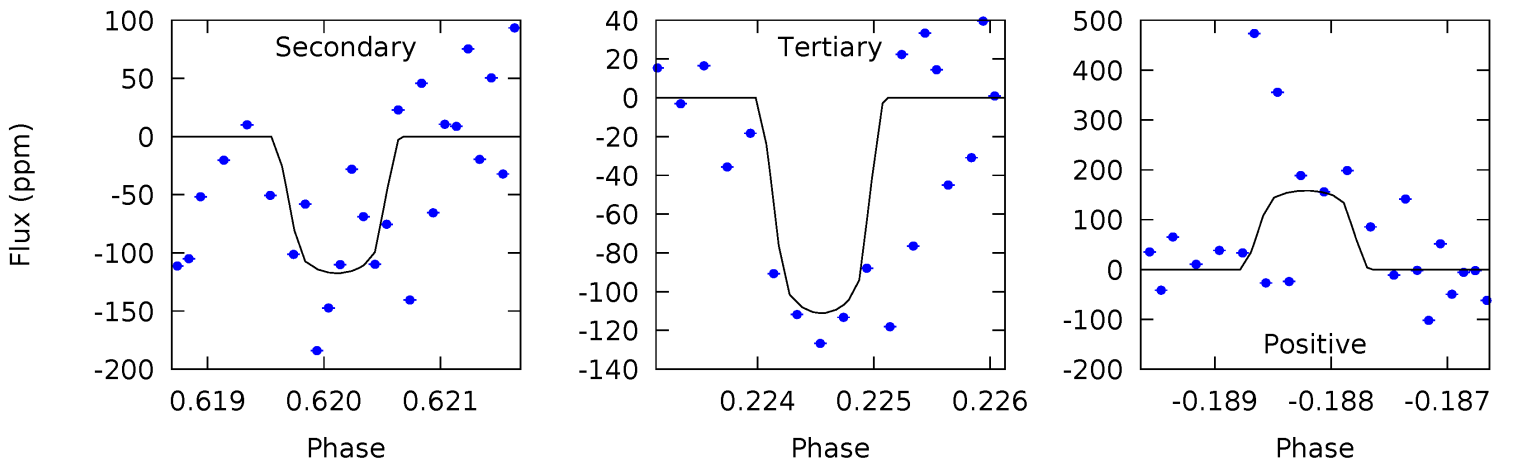
DV Model-Shift Uniqueness Test

005179328-06, P = 102.672857 Days, E = 98.486949 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.85	6.11	5.78	8.23	5.45	3.29	1.58	3.07	0.63	0.33	-2.12	2.02	0.79	0.48	0.20



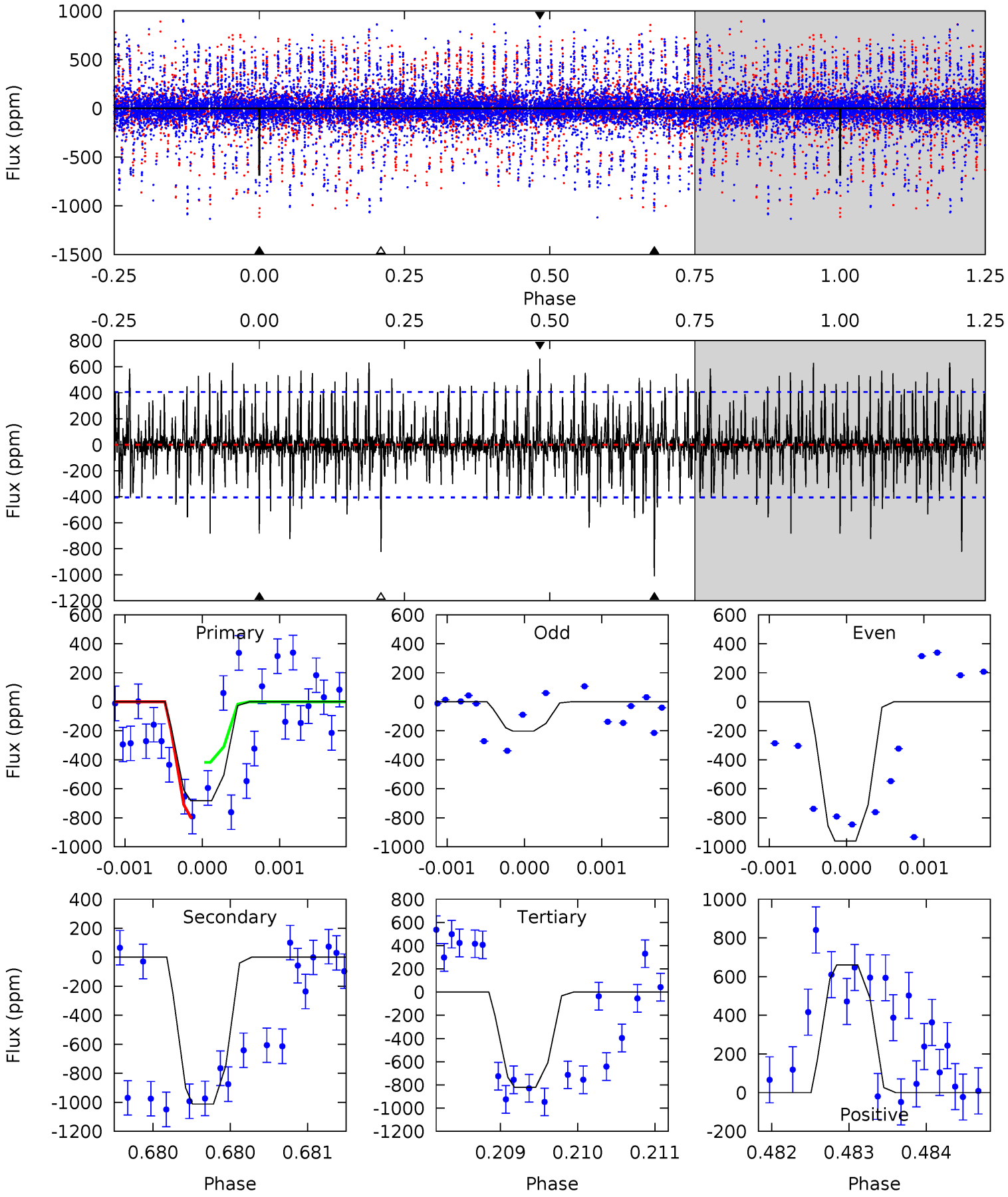




Alt Model-Shift Uniqueness Test

005179328-06, P = 102.671058 Days, E = 98.493340 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.24	13.7	11.1	8.94	5.49	3.36	2.09	-1.90	0.30	2.56	4.76	4.67	1.22	0.39	2.31



Stellar Parameters For KIC 005179328

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6762^{+81}_{-81}	$4.077^{+0.143}_{-0.117}$	$-0.020^{+0.150}_{-0.150}$	$1.818^{+0.307}_{-0.341}$	$1.444^{+0.115}_{-0.115}$	$0.338^{+0.242}_{-0.122}$
	+1%/-1%	+4%/-3%	+750%/-750%	+17%/-19%	+8%/-8%	+72%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005179328-06 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-117±19	$3.17^{+2.46}_{-1.96}$	809^{+38}_{-43}	5562^{+4047}_{-1222}	1512^{+8926}_{-1047}
Alt.	-1012±74	$5.32^{+2.62}_{-2.46}$	806^{+37}_{-38}	7401^{+4040}_{-1353}	4576^{+12466}_{-2505}

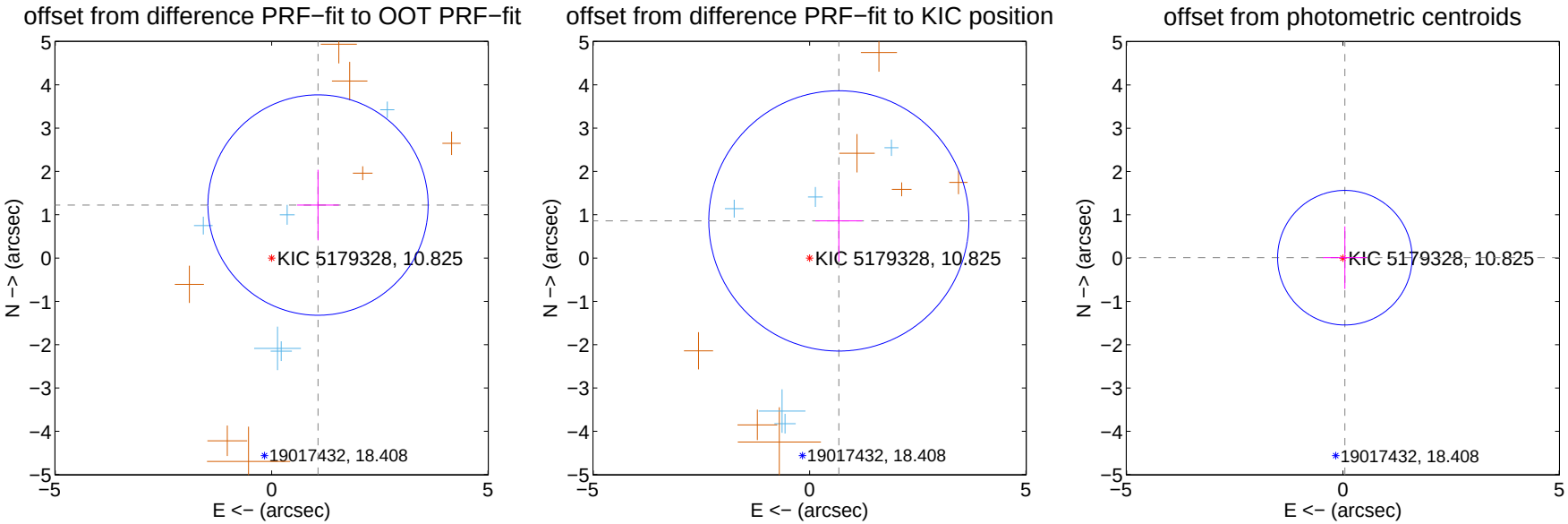
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

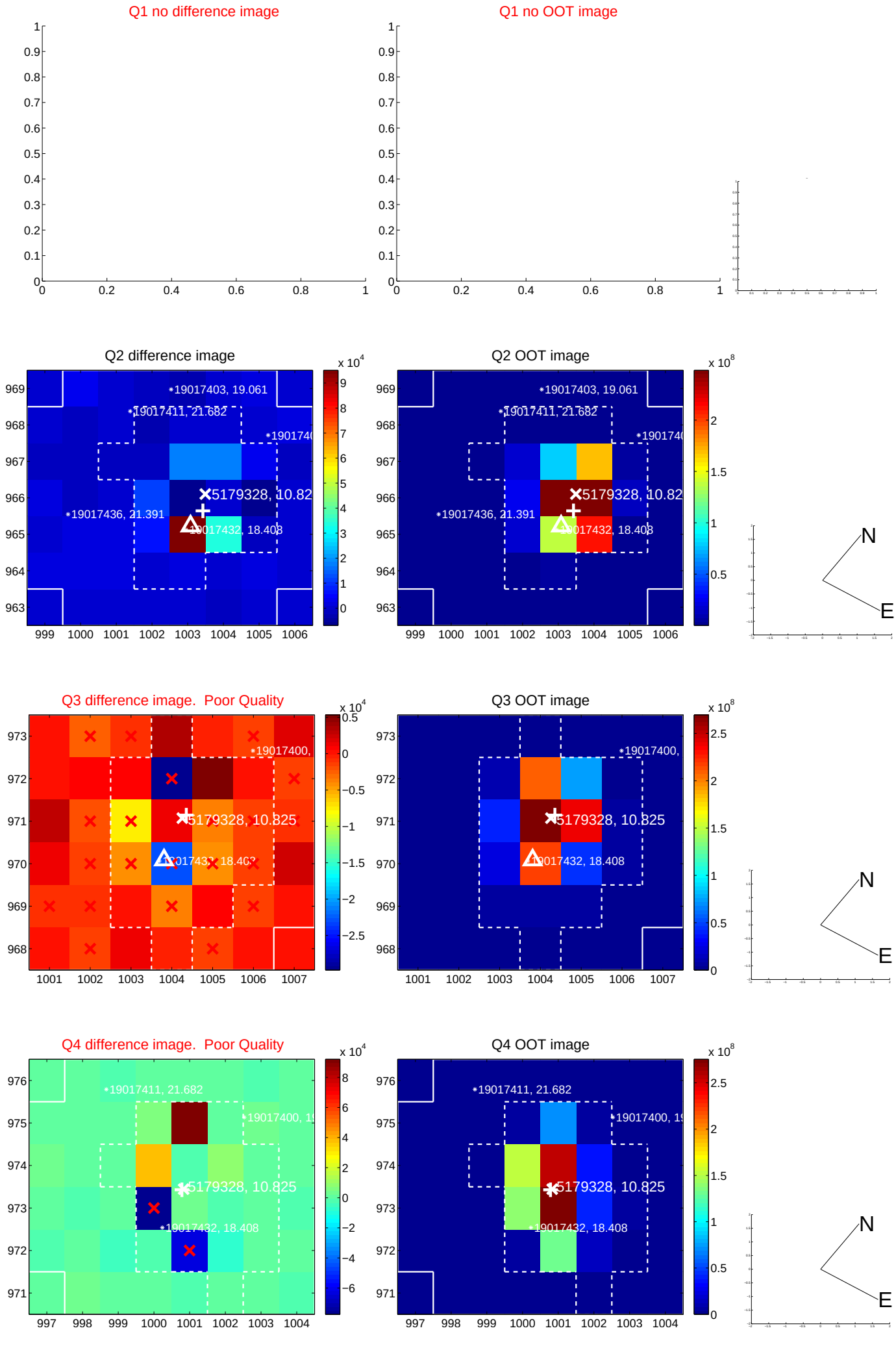
Supplemental centroid analysis for 005179328-06. Kepler magnitude: 10.82. Transit SNR 8.72
There are 5 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.37 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.627 ± 0.848	1.92	-1.072 ± 0.483	1.224 ± 0.816
PRF-fit source offset from KIC position	1.093 ± 1.002	1.09	-0.676 ± 0.542	0.858 ± 0.936
photometric centroid source offset	0.05 ± 0.52	0.09	-0.05 ± 0.51	0.01 ± 0.72

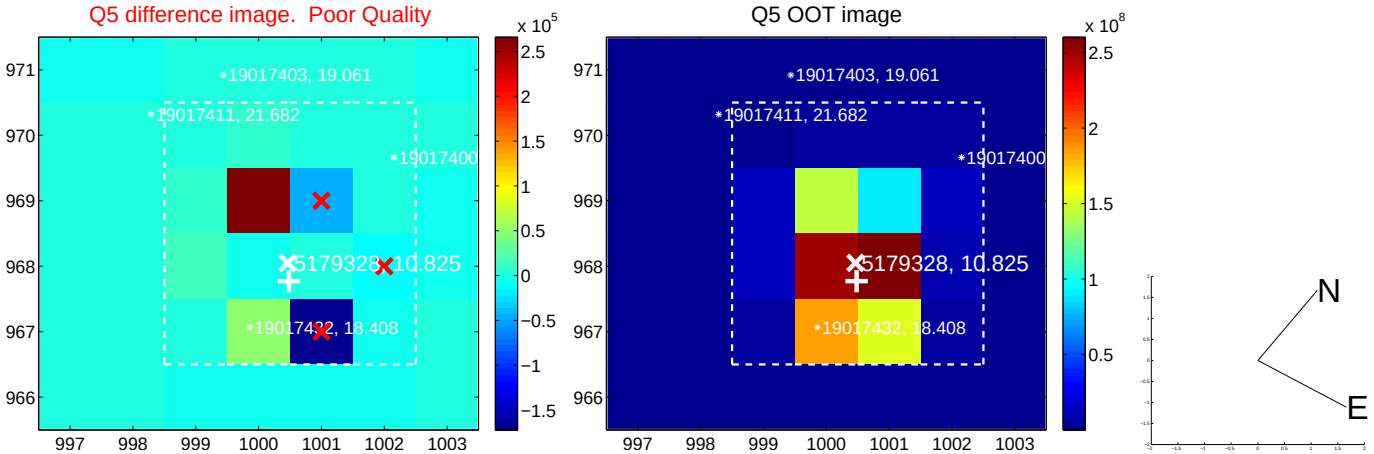


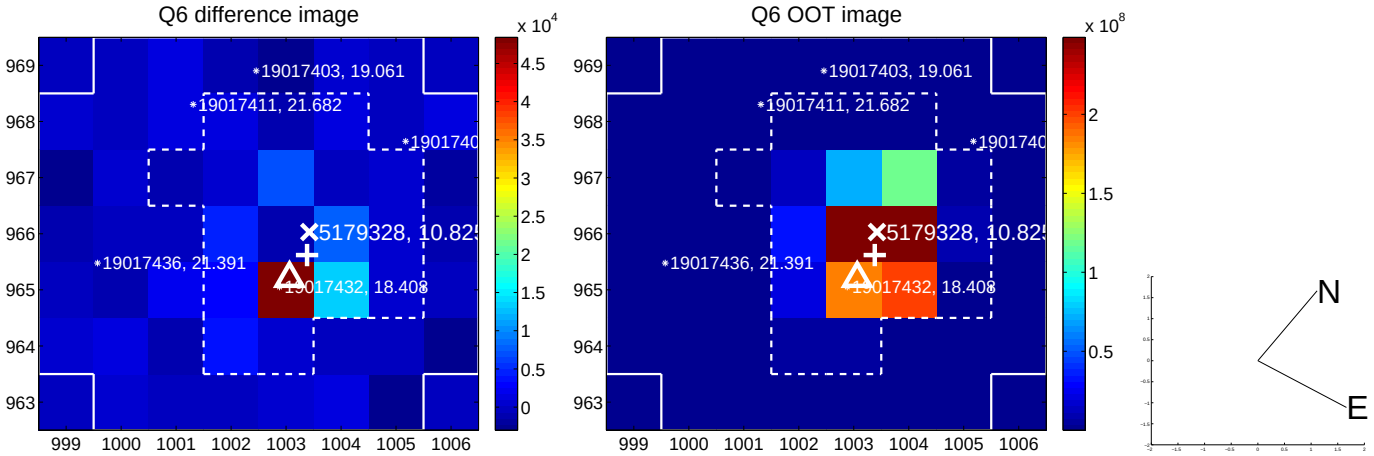
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs $> 15,000,000$ are from the UKIRT catalog.

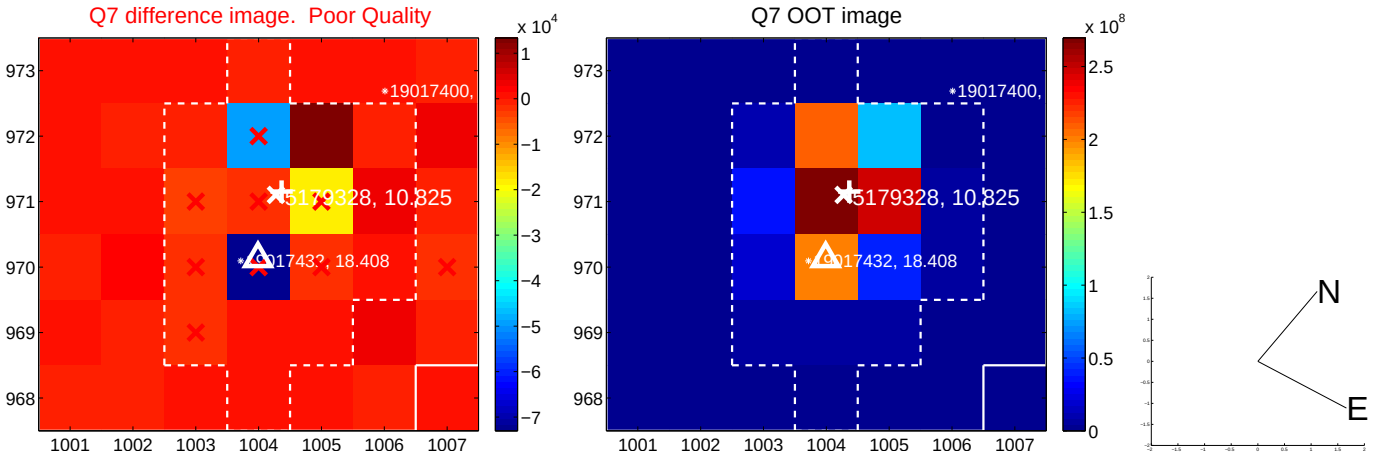
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

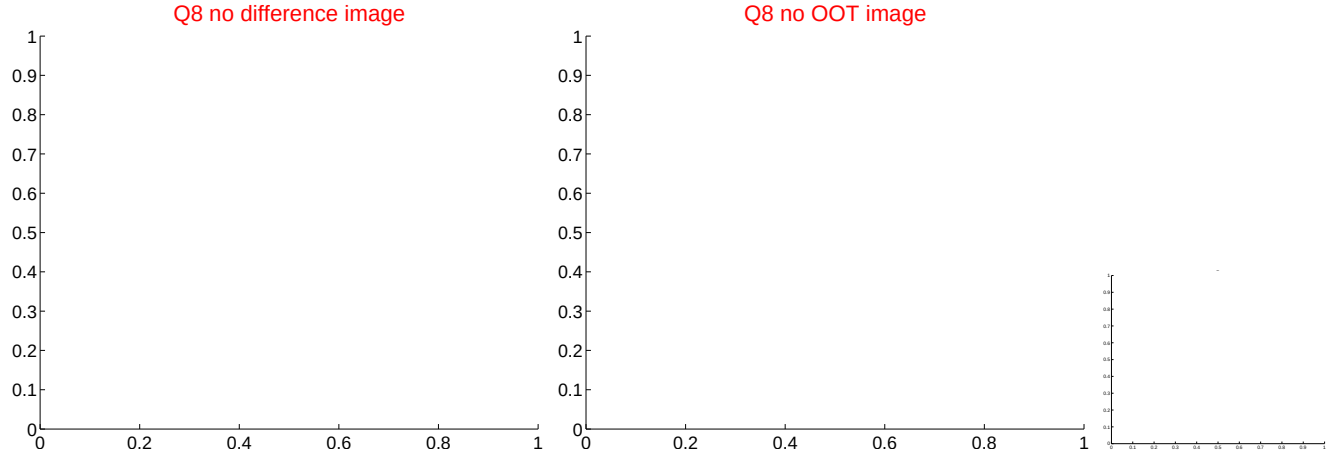


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

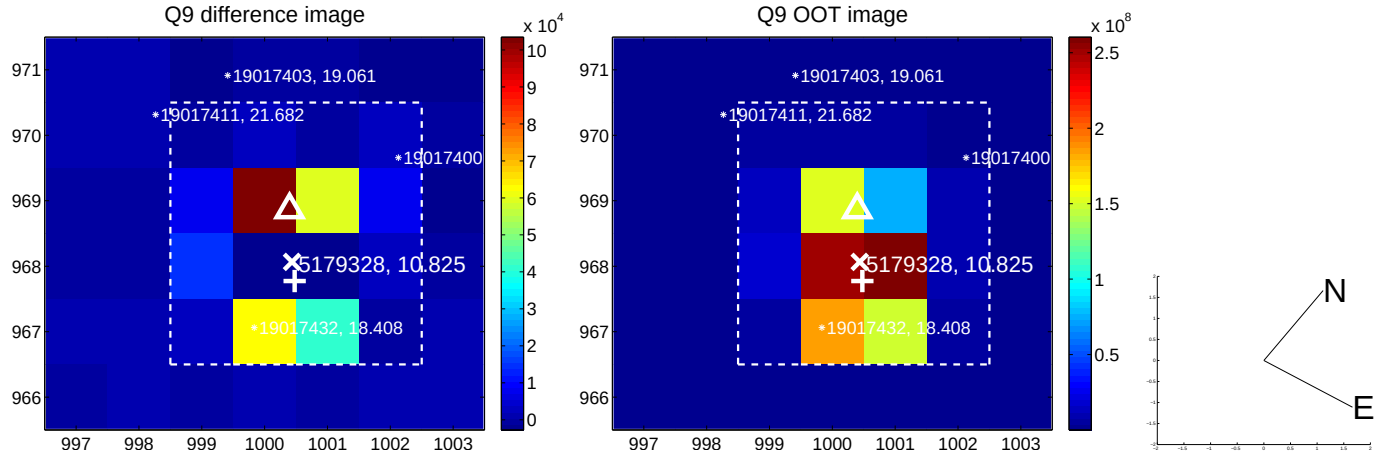


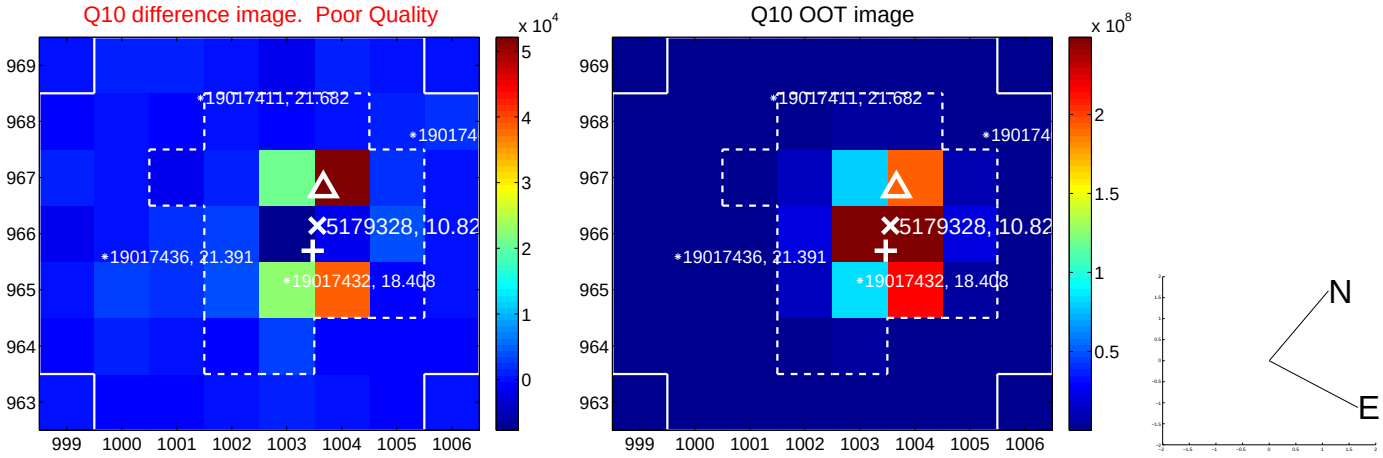


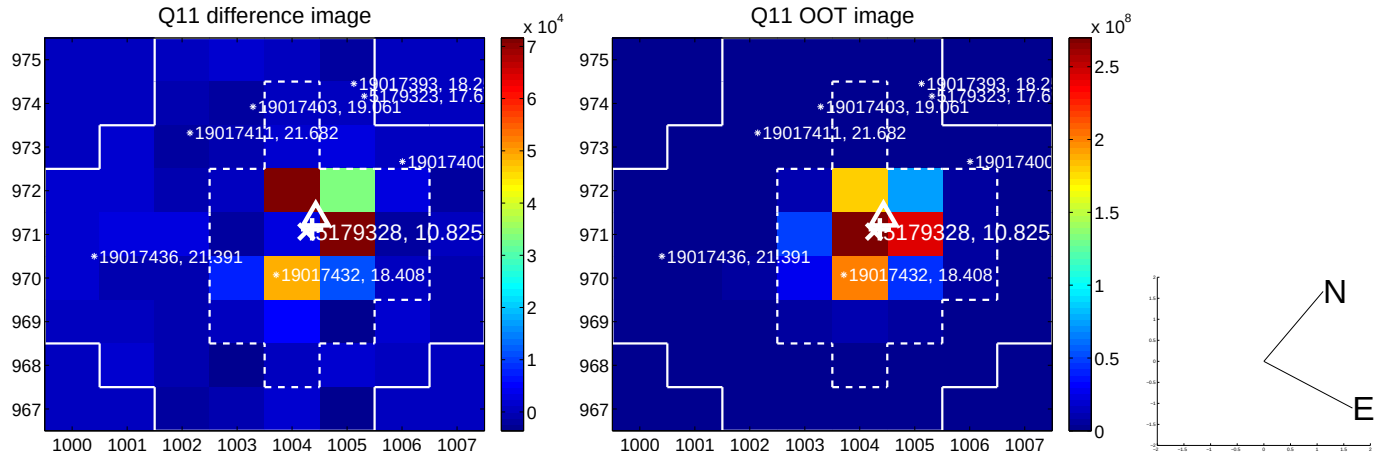


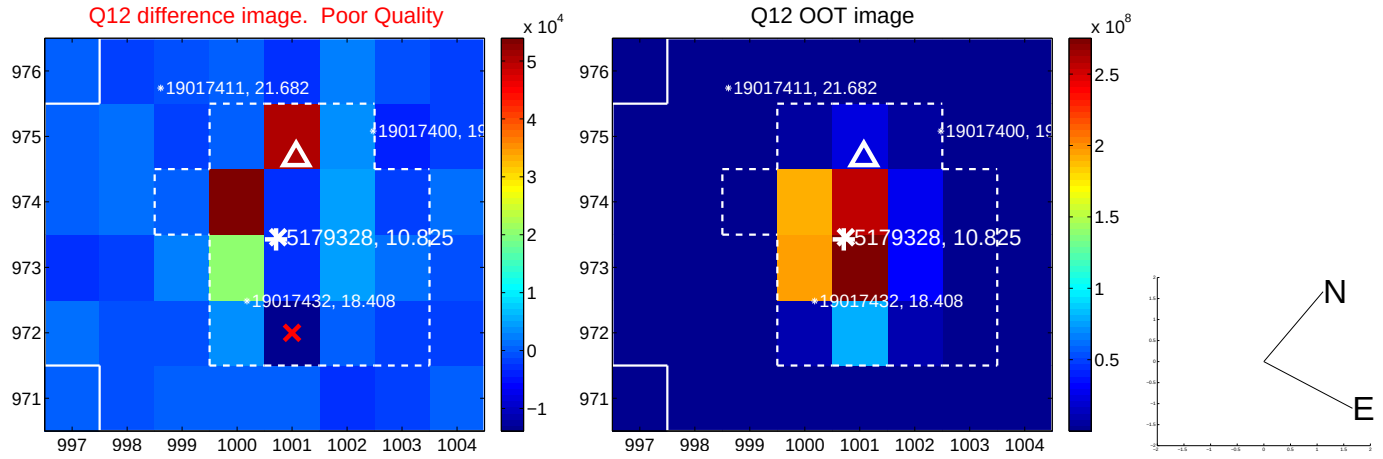


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

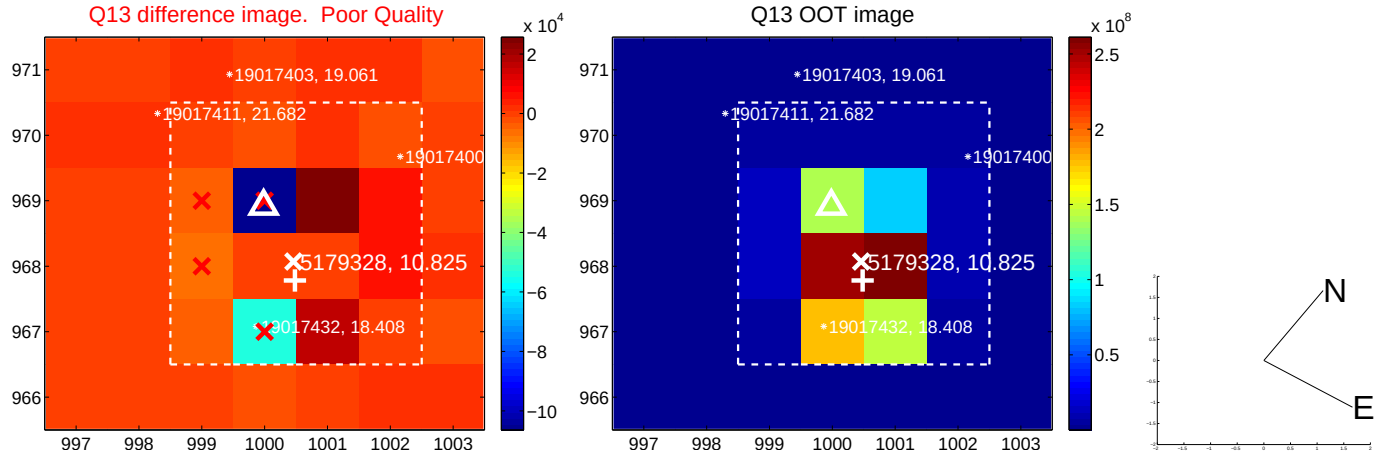


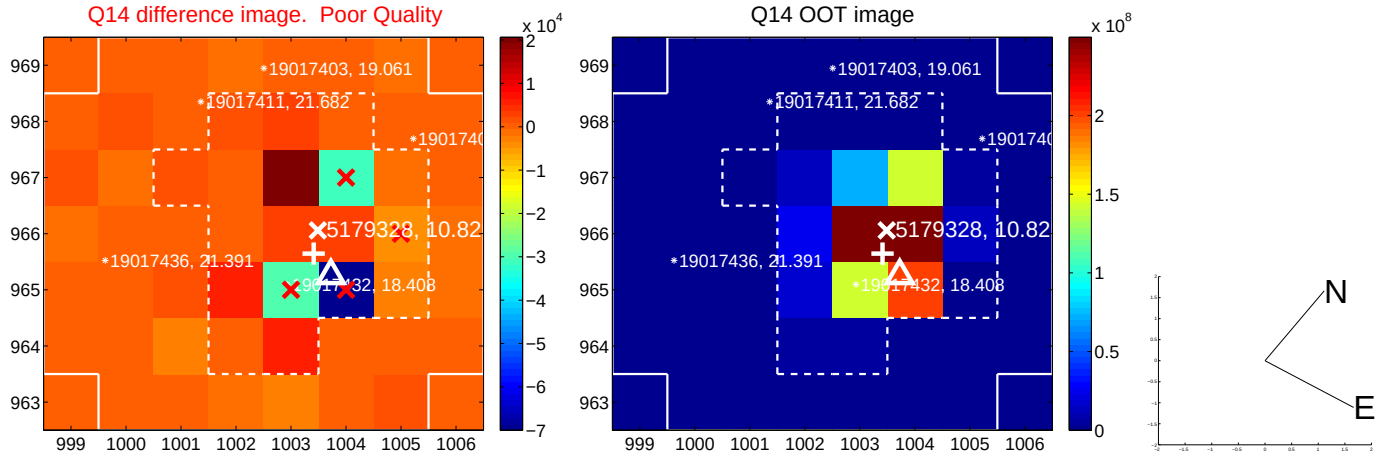


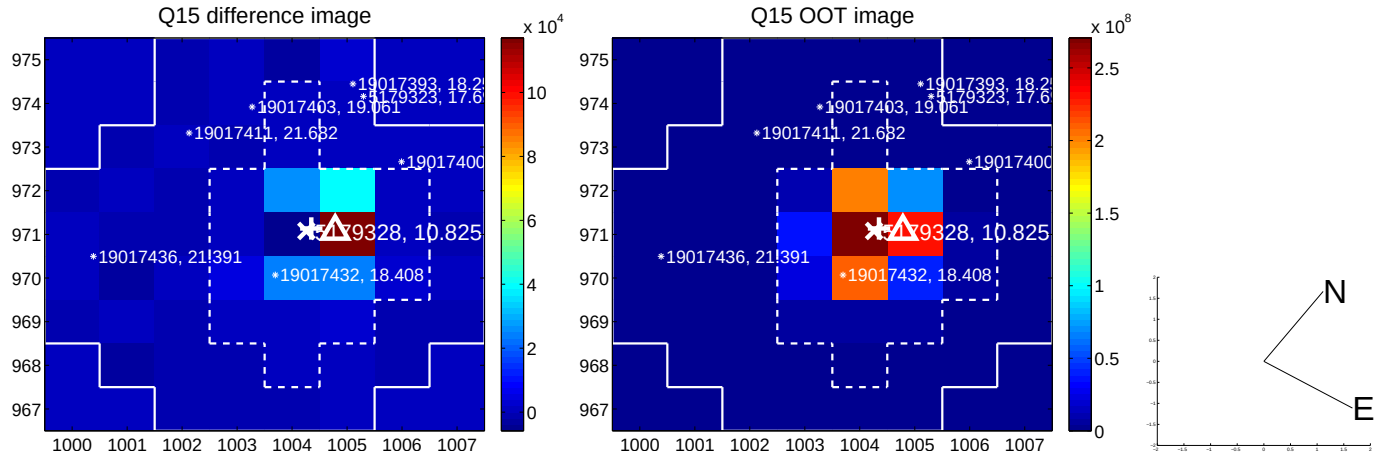


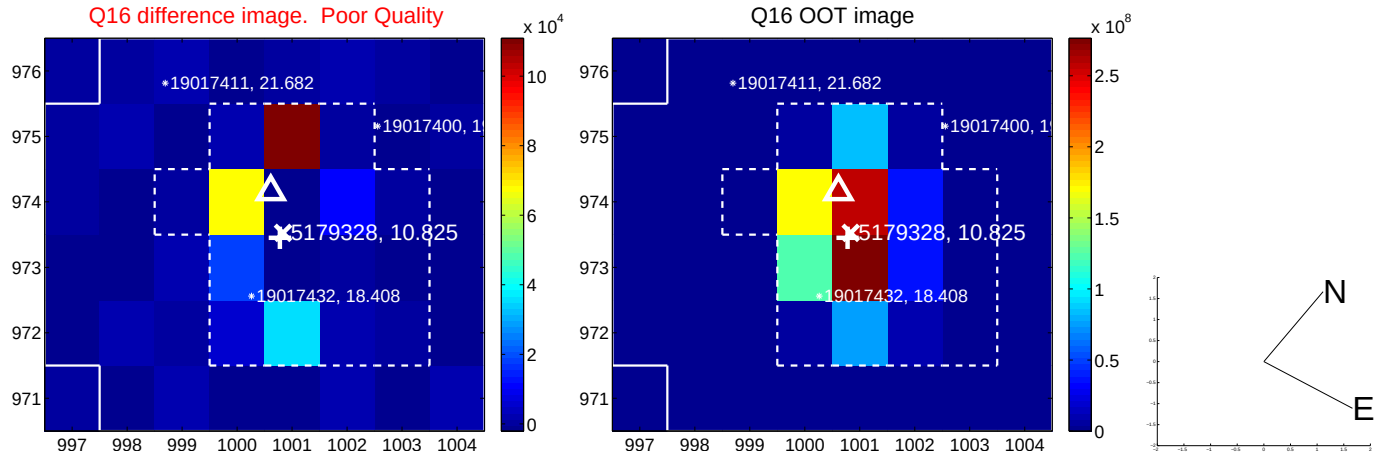


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

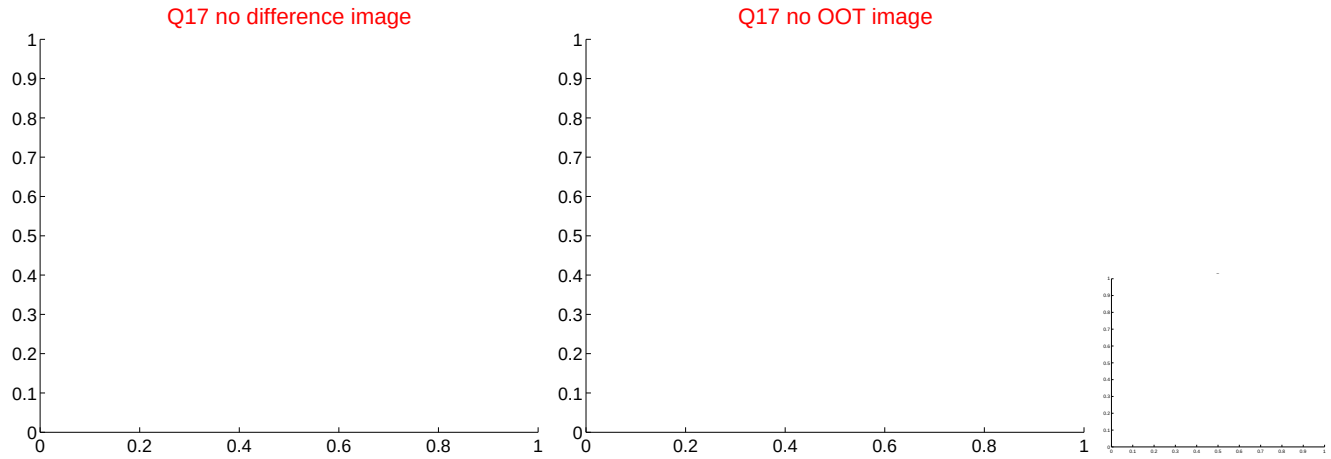


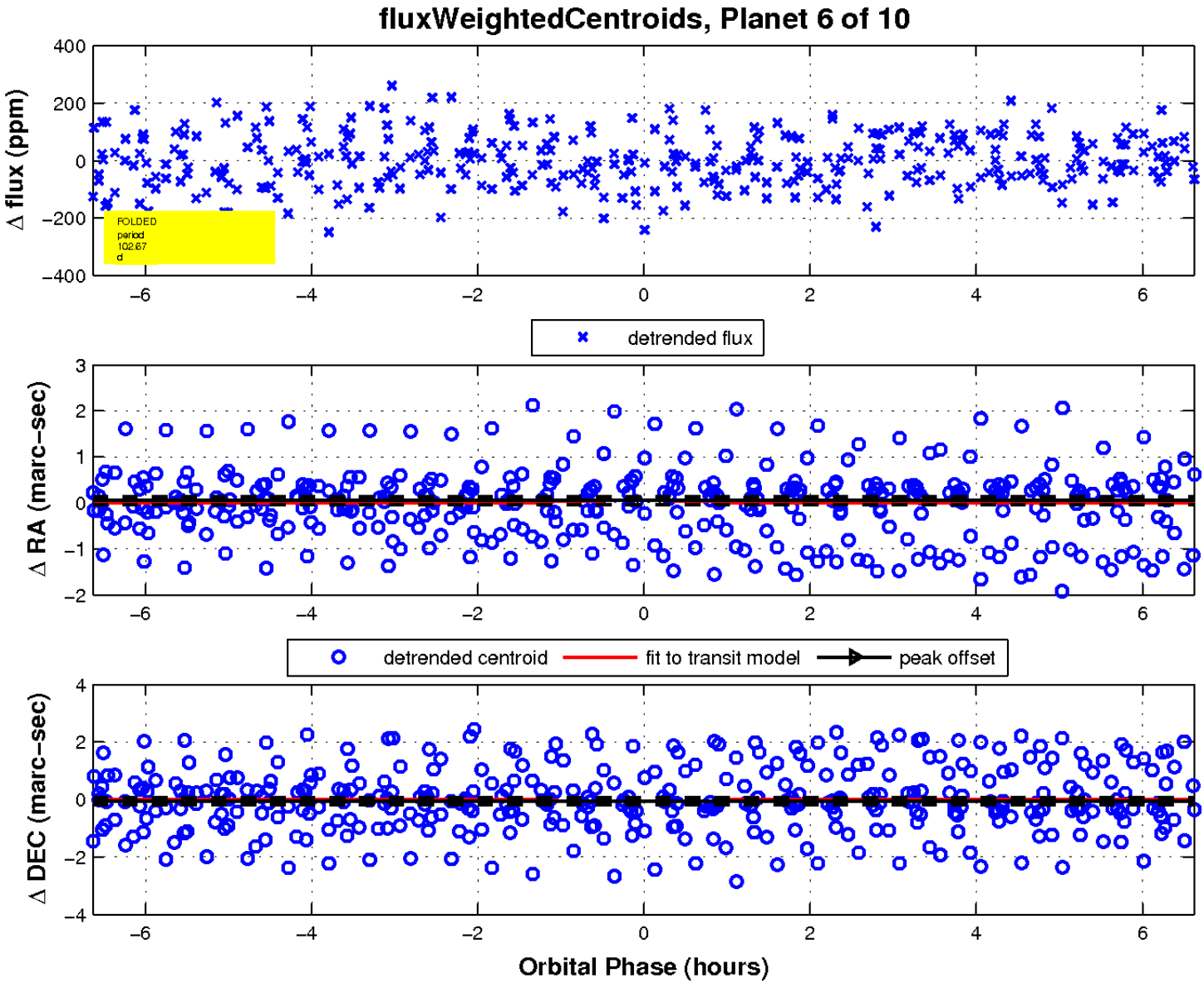




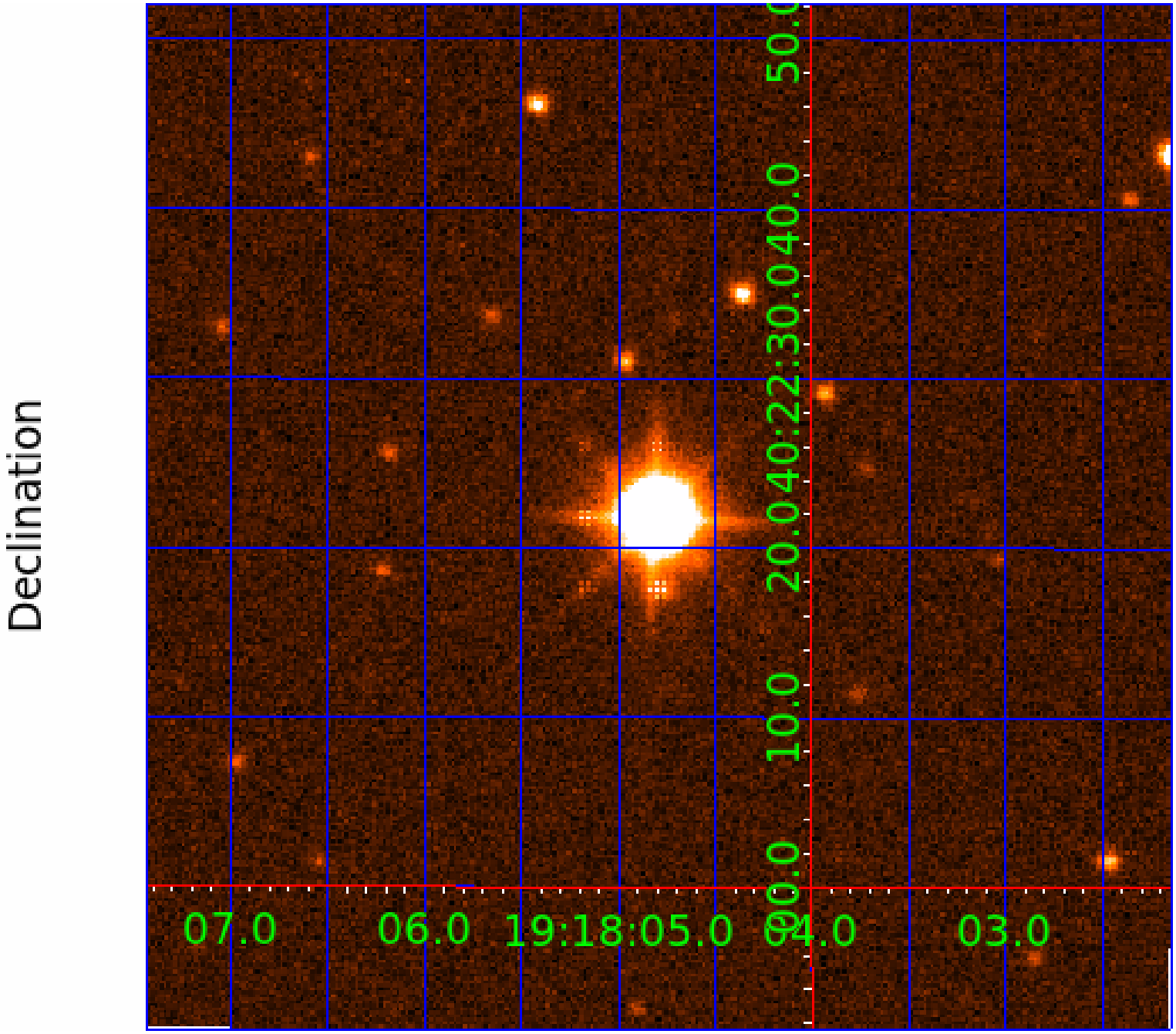


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image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04.0
03.0

KIC 005179328

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_\star$ ($R_\odot$)	$T_\star$ (K)	R_p ($R_\oplus$)	S_p ($S_\oplus$)
005179328-01	OBS	No	0.670370	131.764741	8.2	4.033	8.9	6.8	1.82	6762	0.60	21602.52
005179328-02	OBS	No	108.777871	185.898559	134.5	11.798	8.4	7.9	1.82	6762	2.36	24.41
005179328-04	OBS	No	50.596736	179.377582	7.5	0.919	9.0	0.3	1.82	6762	0.58	67.73
005179328-05	OBS	No	321.707316	141.046541	229.4	5.303	8.6	8.1	1.82	6762	3.00	5.75
005179328-06	OBS	No	102.672857	201.159806	177.8	2.224	8.2	8.7	1.82	6762	2.73	26.36
005179328-07	OBS	No	44.423528	165.932506	153.8	1.359	9.2	8.0	1.82	6762	2.58	80.56
005179328-08	OBS	No	31.414157	133.679706	116.3	2.102	8.4	9.1	1.82	6762	2.27	127.87
005179328-09	OBS	No	77.609623	148.121983	124.0	4.261	8.7	7.2	1.82	6762	2.30	38.29
005179328-10	OBS	No	125.588996	139.259222	156.4	9.832	8.1	8.6	1.82	6762	2.43	20.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005179328-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
005179328-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_SATURATED
005179328-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_SATURATED
005179328-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

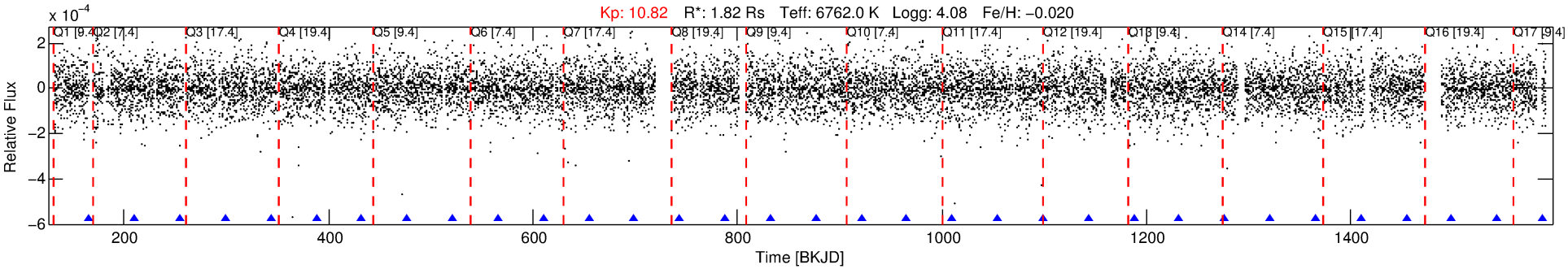
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

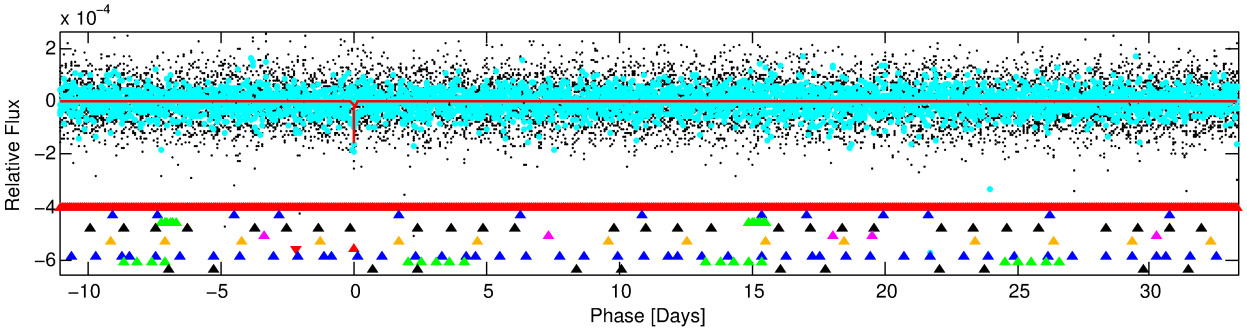
Ephemeris Match Information For 005179328-07

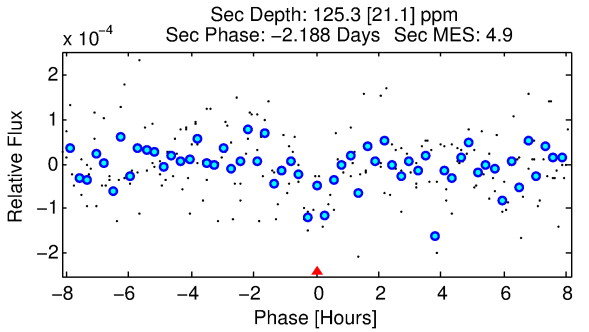
No Significant Match Found

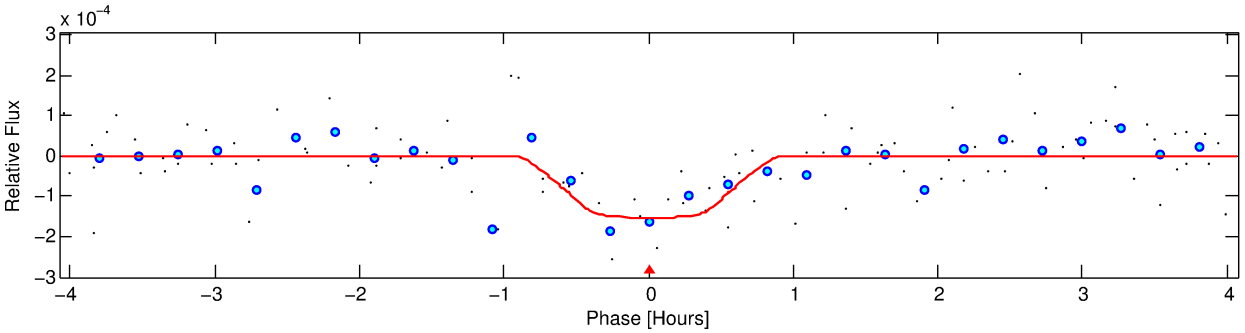
DV One-Page Summary

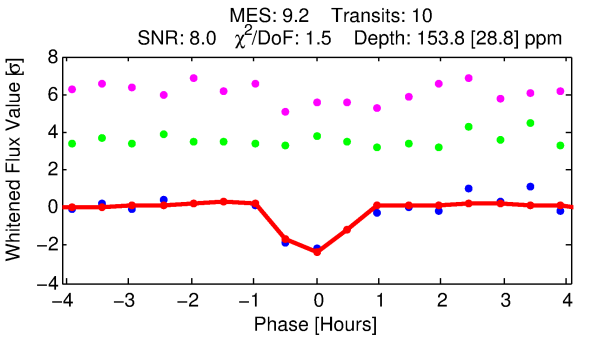
KIC: 5179328 Candidate: 7 of 10 Period: 44.424 d

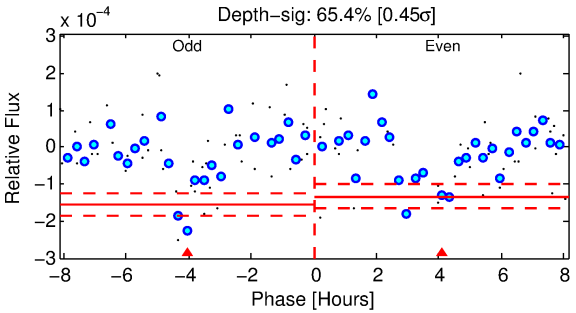


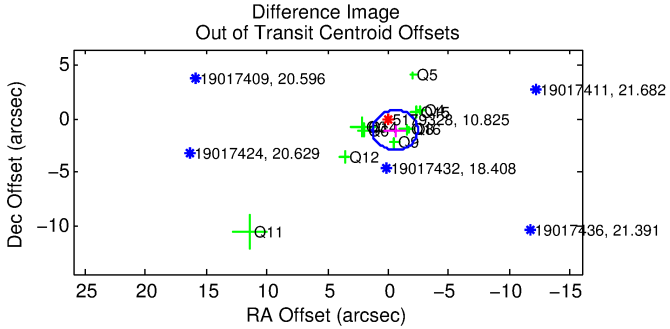












DV Fit Results:

Period = 44.42353 [0.00029] d
Epoch = 165.9325 [0.0057] BKJD
Rp/R* = 0.0130 [0.0118]
a/R* = 130.39 [688.14]
b = 0.87 [1.52]

Seff = 80.56 [20.71]
Teq = 764 [49] K
Rp = 2.58 [2.40] Re
a = 0.2772 [0.0461] AU

Ag = 795.79 [1468.76] [0.54σ]
Teffp = 6273 [2868] K [1.92σ]

DV Diagnostic Results:

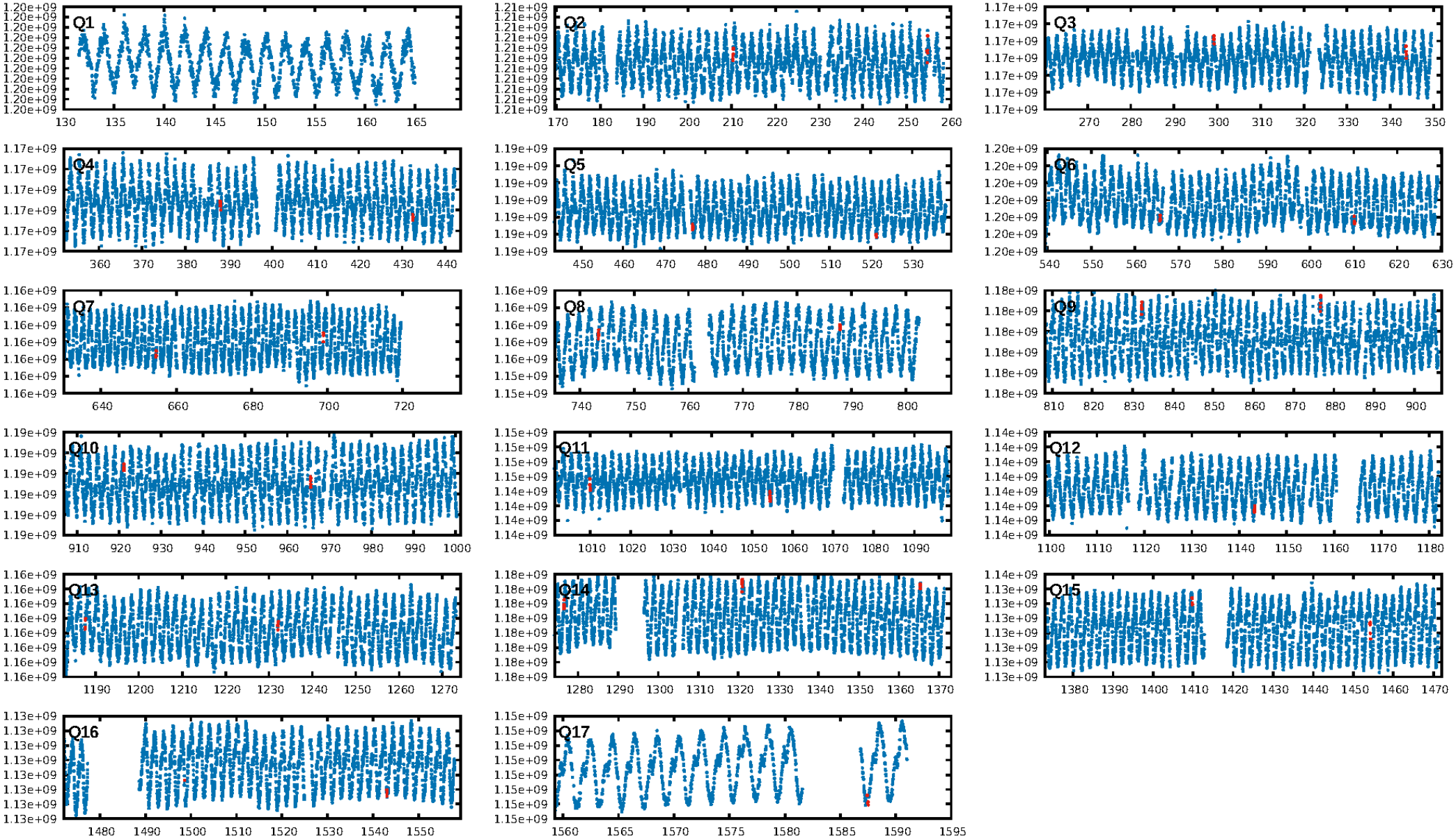
ShortPeriod−sig: 100.0% [124.72σ]
LongPeriod−sig: 100.0% [90.32σ]
ModelChiSquare2−sig: 1.6%
ModelChiSquareGof−sig: 97.5%
Bootstrap−pfa: N/A
RollingBand−fgt: 1.00 [9/9]
GhostDiagnostic−chr: −0.3112

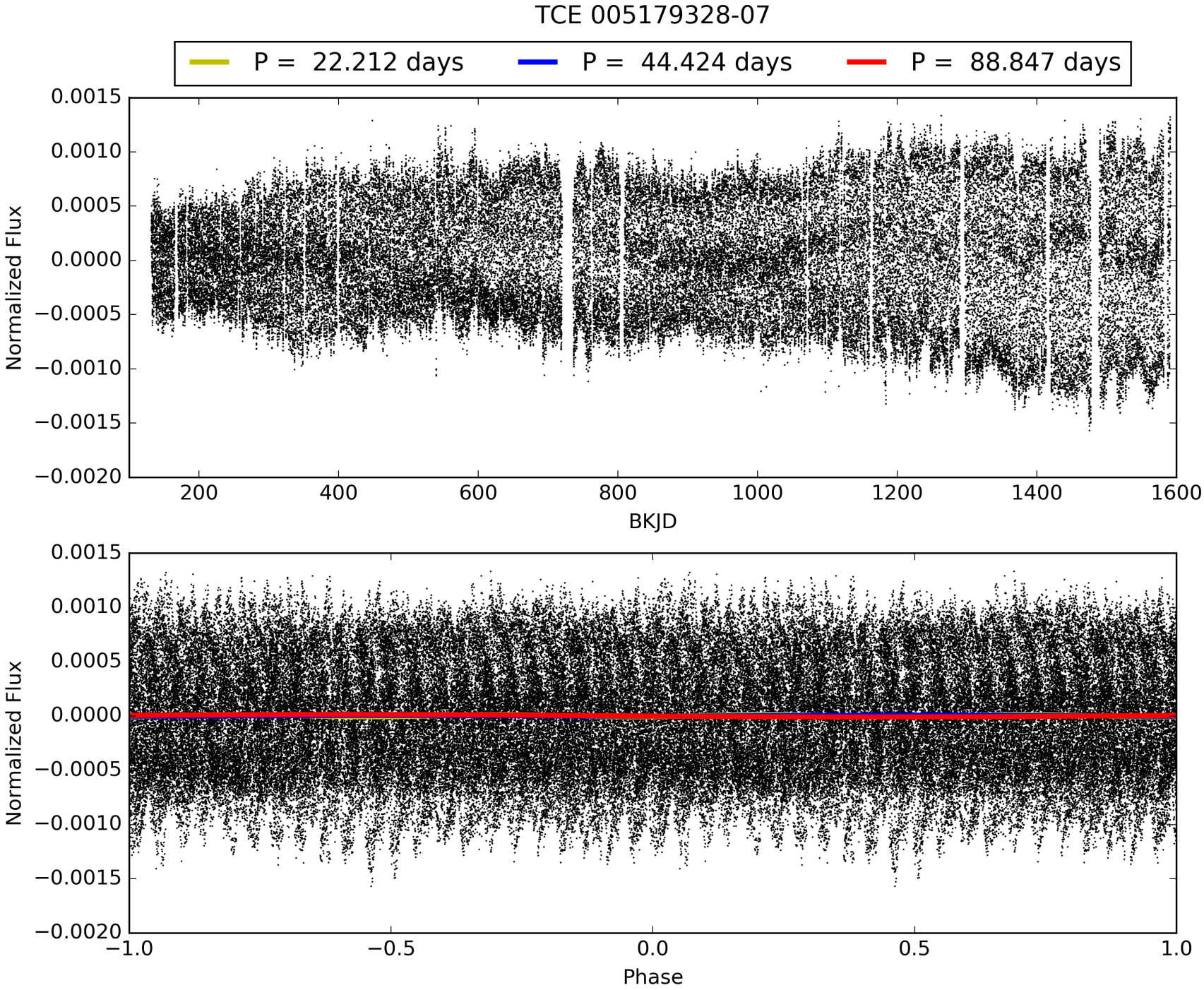
Centroid−sig: 12.8%
Centroid−so: 0.982 arcsec [1.53σ]
OotOffset−rm: 1.196 arcsec [1.92σ]
KicOffset−rm: 1.096 arcsec [1.54σ]
OotOffset−st: 2/3/4/2 [11]
KicOffset−st: 2/3/4/2 [11]
DiffImageQuality−fgm: 0.36 [4/11]
DiffImageOverlap−fno: 0.13 [2/15]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 −− Date Generated: 01−Feb−2016 20:02:49 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005179328-07, PDC Light Curves




TCE 005179328-07
P = 22.212 days
P = 44.424 days
P = 88.847 days
Normalized Flux
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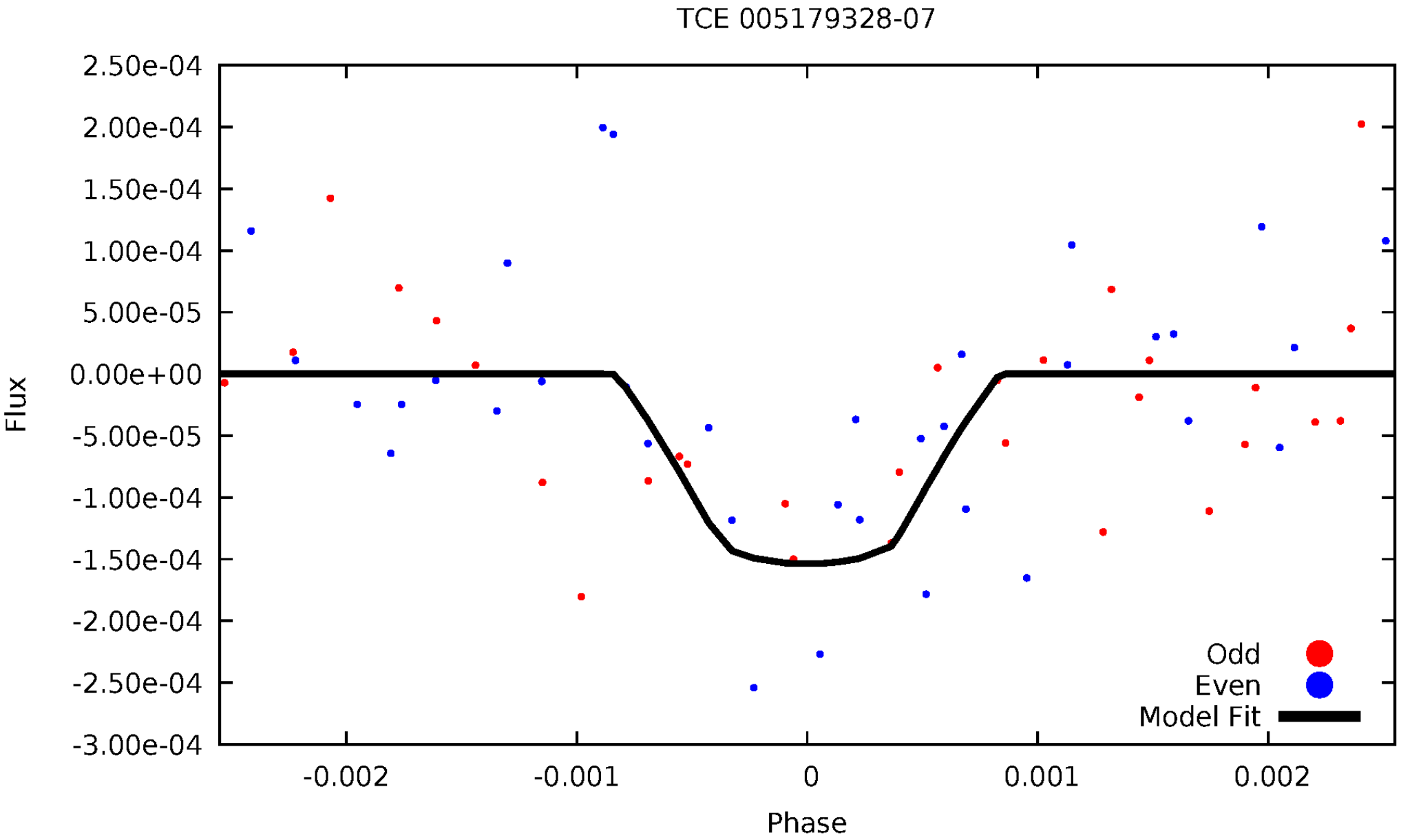
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015
−0.0020
200
400
600
800
1000
1200
1400
1600
BKJD
Normalized Flux
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015
−0.0020
−1.0
−0.5
0.0
0.5
1.0
Phase

DV Odd/Even


TCE 005179328-07
Flux
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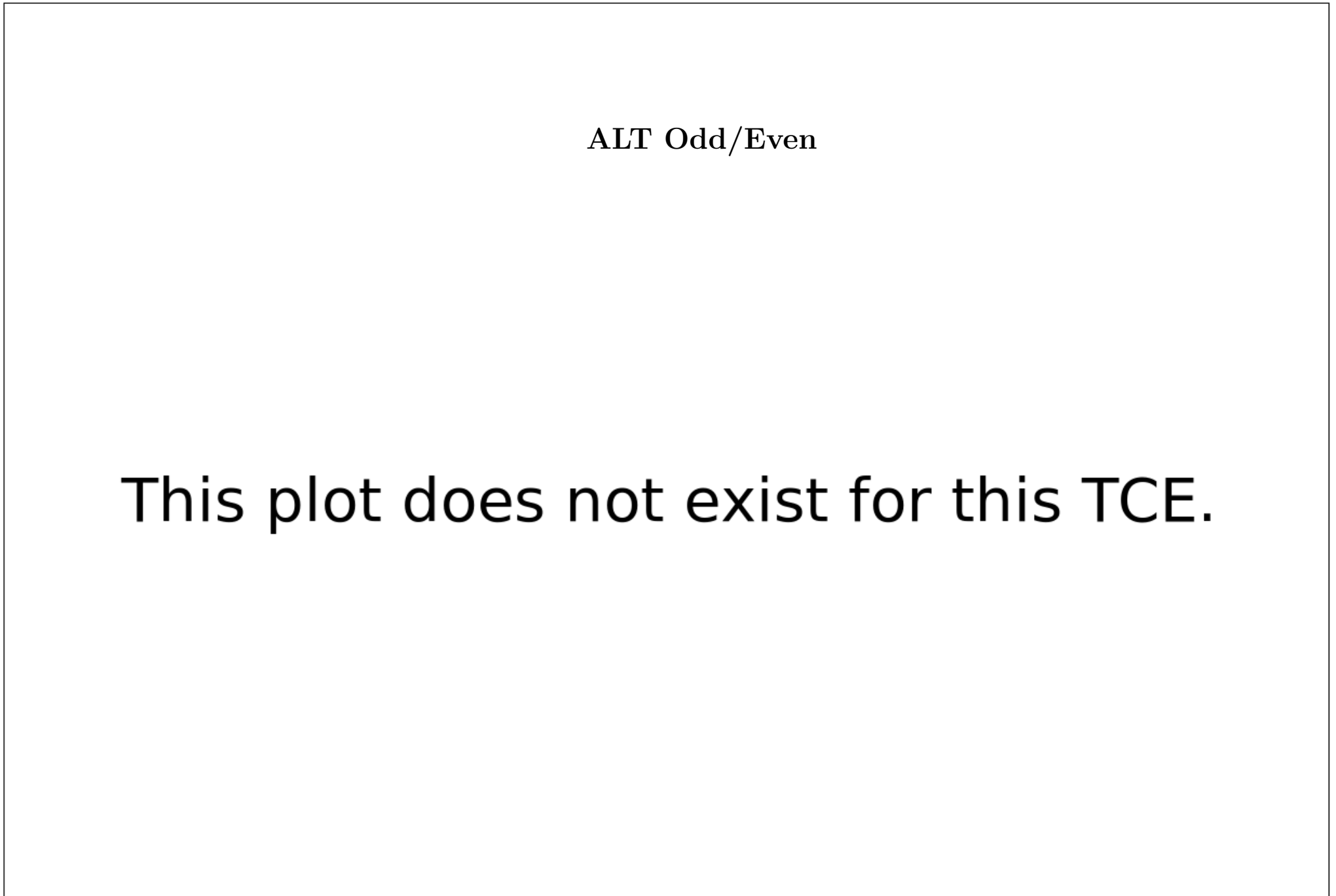
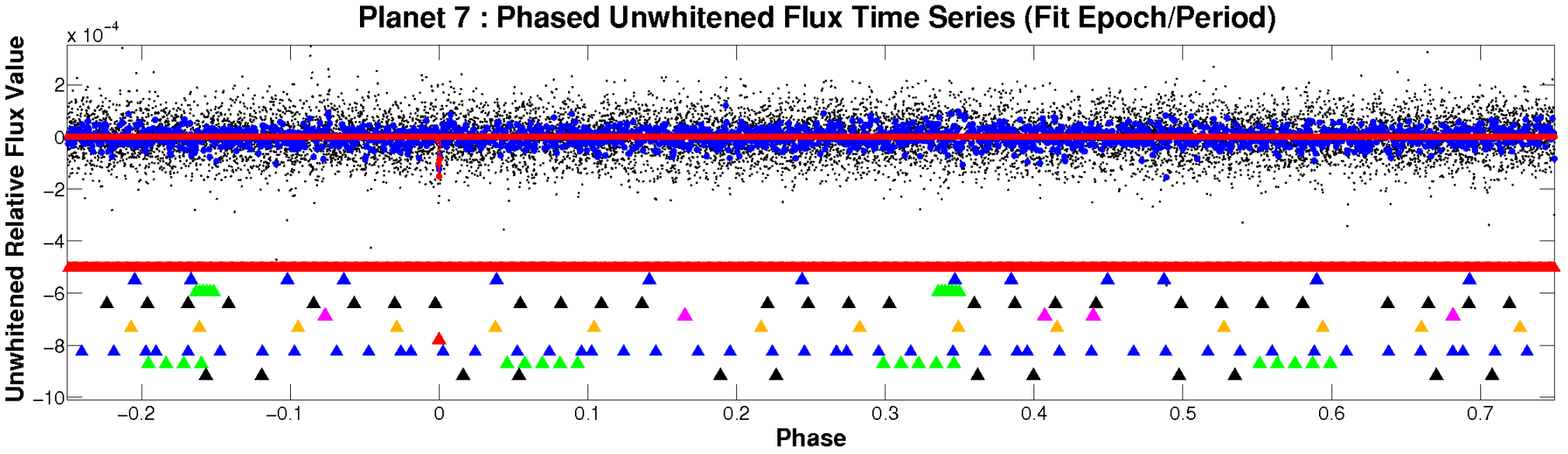
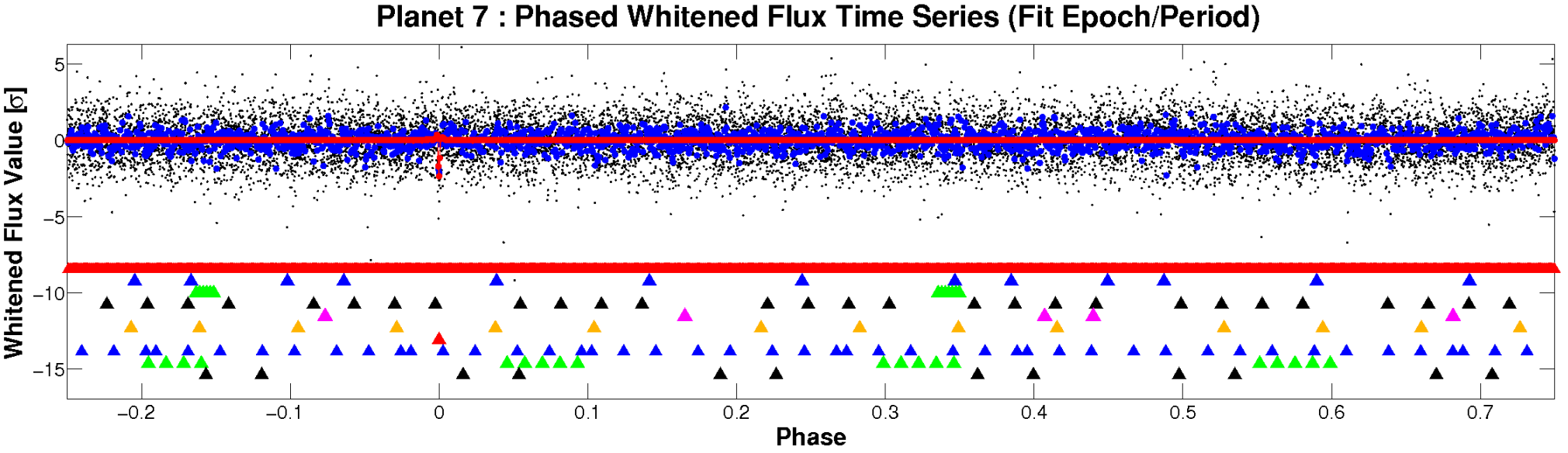
1.00e-04
5.00e-05
0.00e+00
-5.00e-05
-1.00e-04
-1.50e-04
-2.00e-04
-2.50e-04
-3.00e-04
-0.002
-0.001
0
0.001
0.002
Phase
Odd
Even
Model Fit

ALT Odd/Even



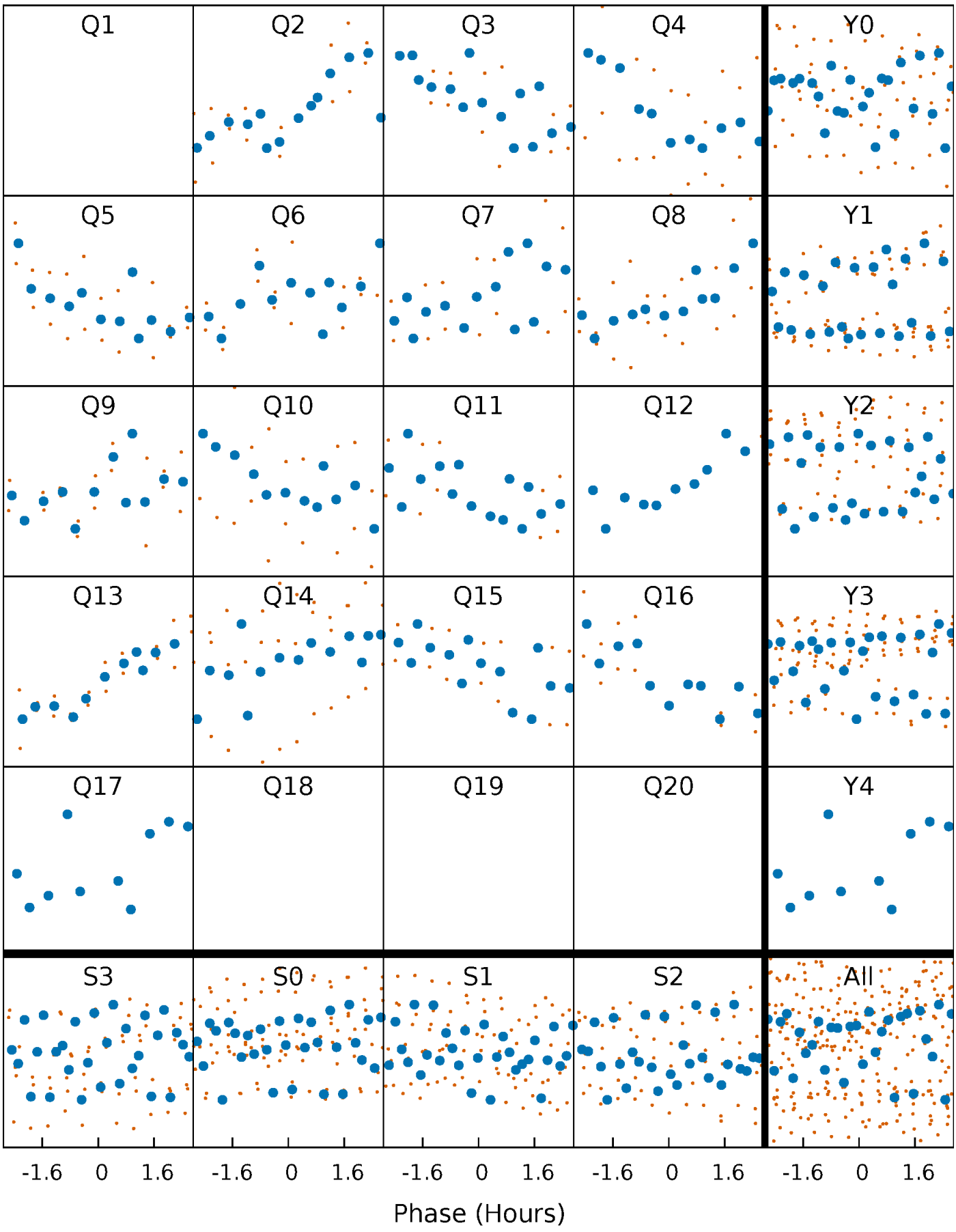
Non-Whitened Vs. Whitened Light Curve





PDC Quarter-Phased Transit Curves

TCE 005179328-07 P= 44.423528 Days T_0=165.932506 (BKJD)



DV Quarter-Phased Transit Curves

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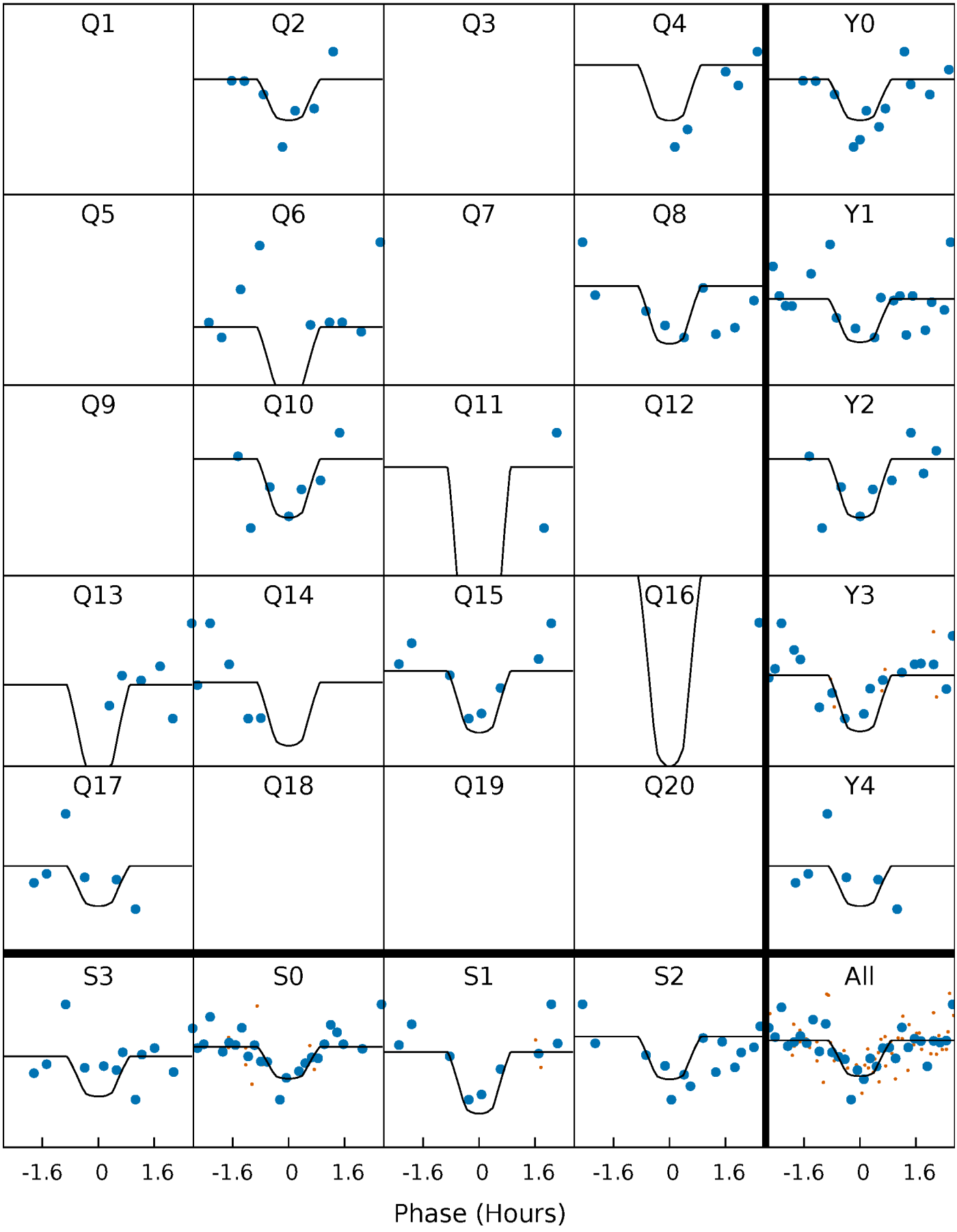
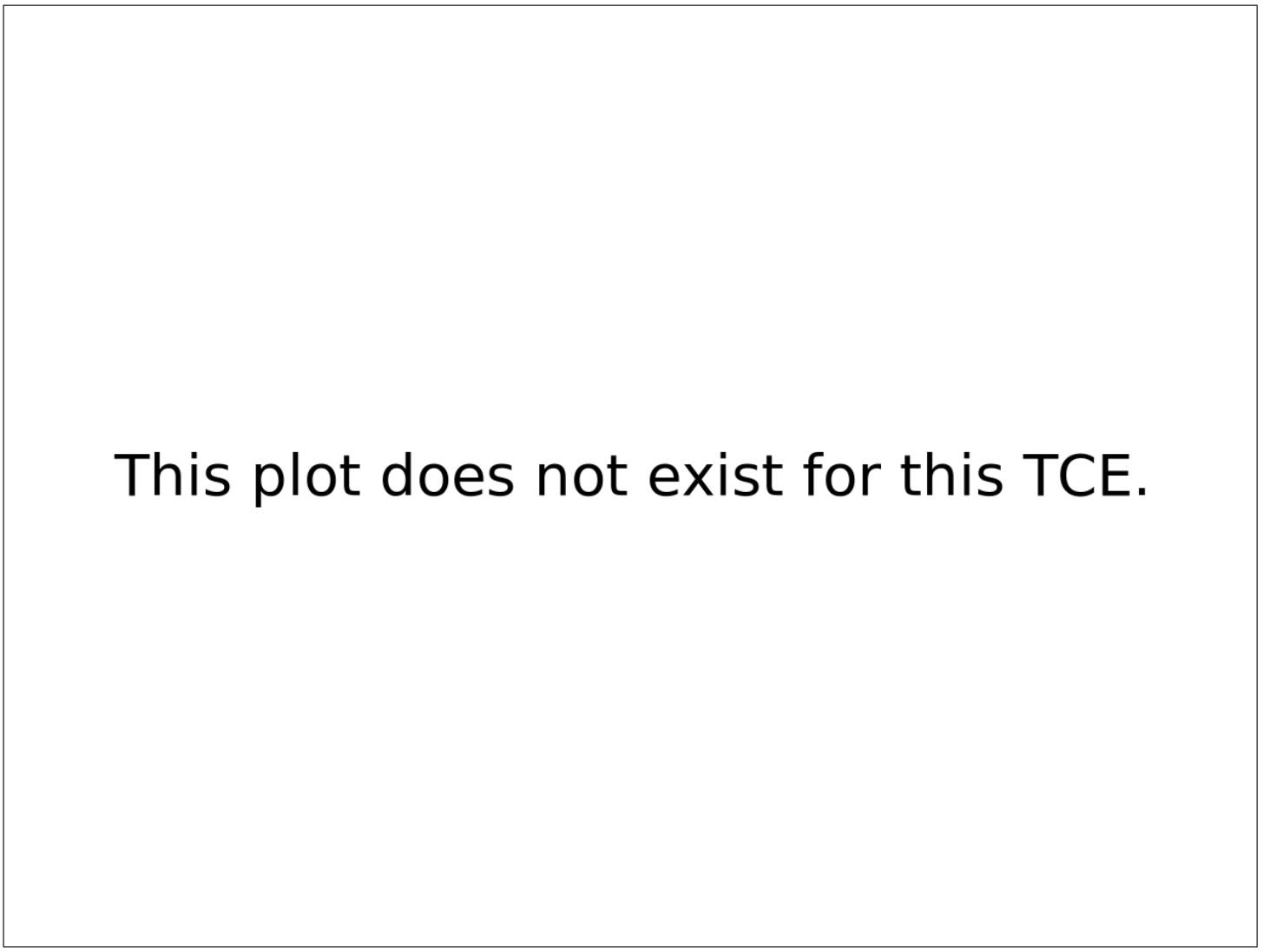
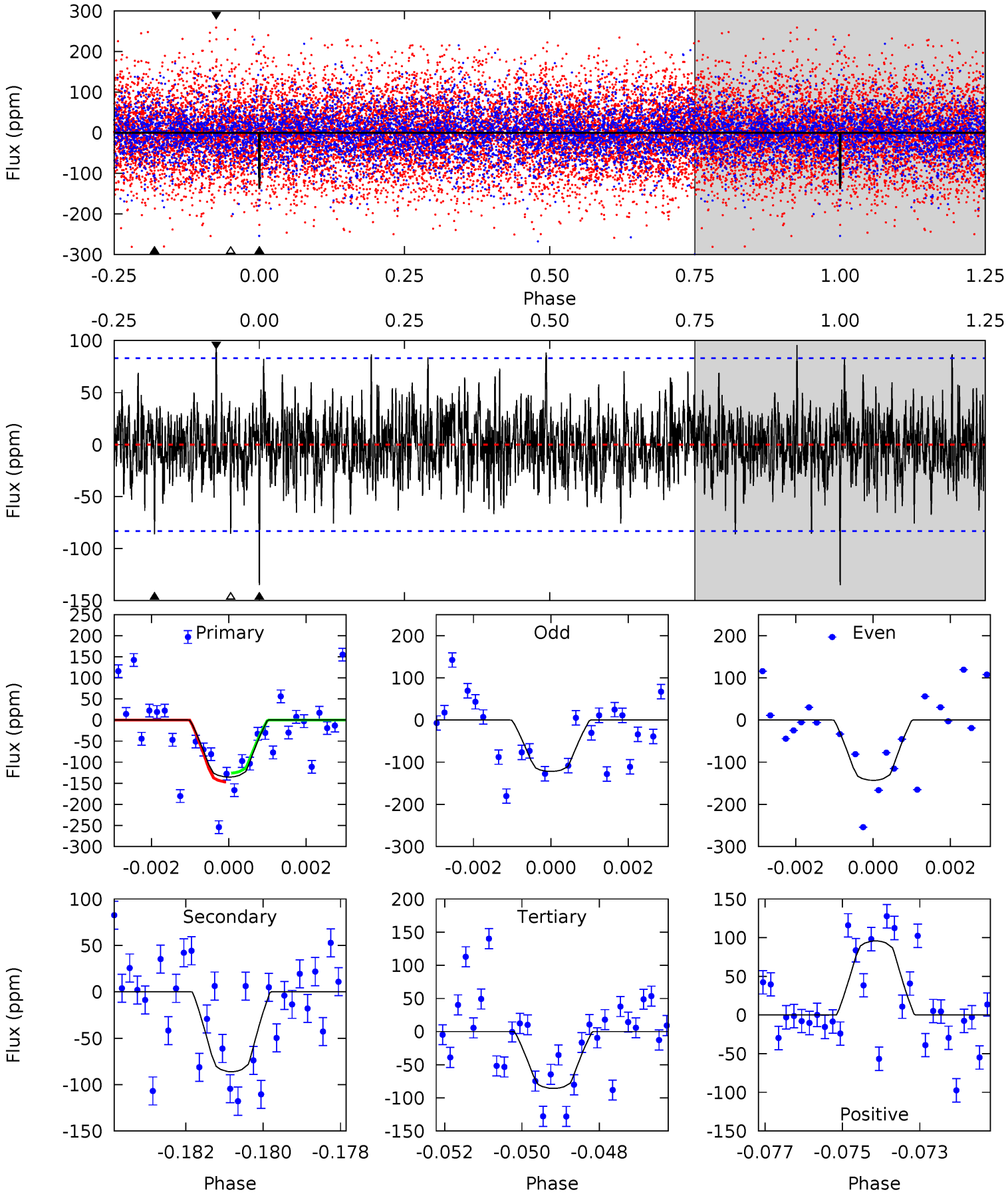



This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

005179328-07, P = 44.423528 Days, E = 121.508978 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.71	5.55	5.52	6.17	5.36	3.14	1.56	3.19	2.54	0.03	-0.62	0.67	1.03	0.41	0.68



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 005179328

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6762^{+81}_{-81}	$4.077^{+0.143}_{-0.117}$	$-0.020^{+0.150}_{-0.150}$	$1.818^{+0.307}_{-0.341}$	$1.444^{+0.115}_{-0.115}$	$0.338^{+0.242}_{-0.122}$
	+1%/-1%	+4%/-3%	+750%/-750%	+17%/-19%	+8%/-8%	+72%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005179328-07 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-86±16	$3.01^{+2.15}_{-1.84}$	1067^{+50}_{-55}	5322^{+3574}_{-1058}	415^{+2282}_{-280}
Alt.	N/A	N/A	N/A	N/A	N/A

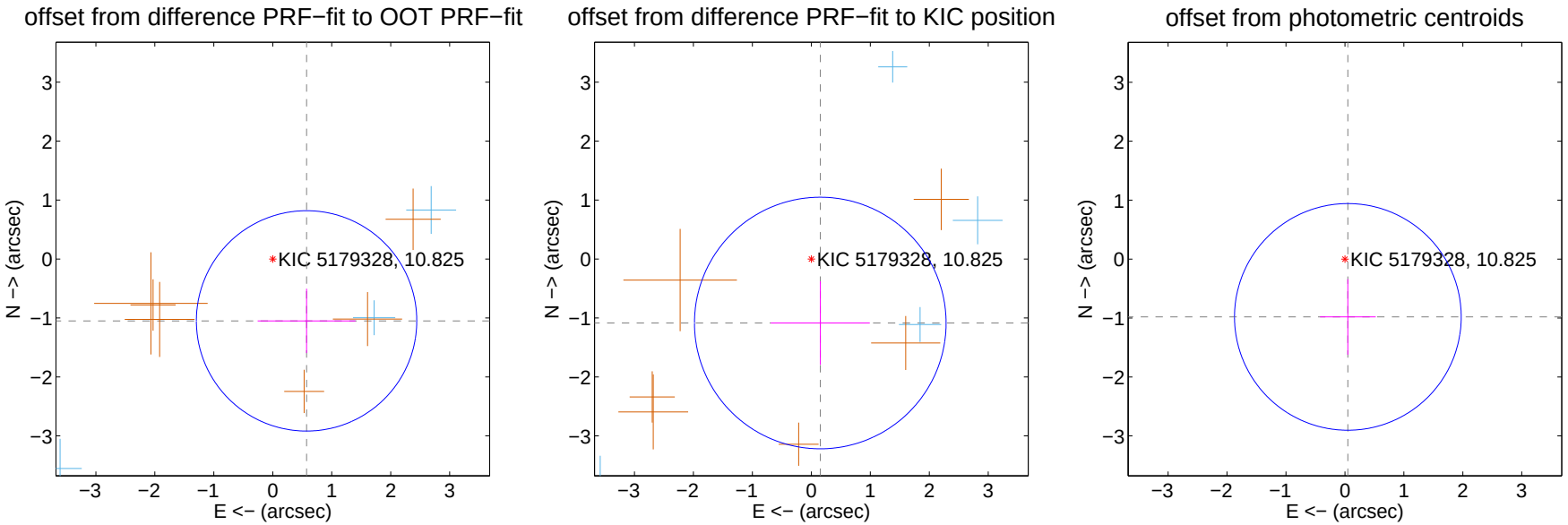
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

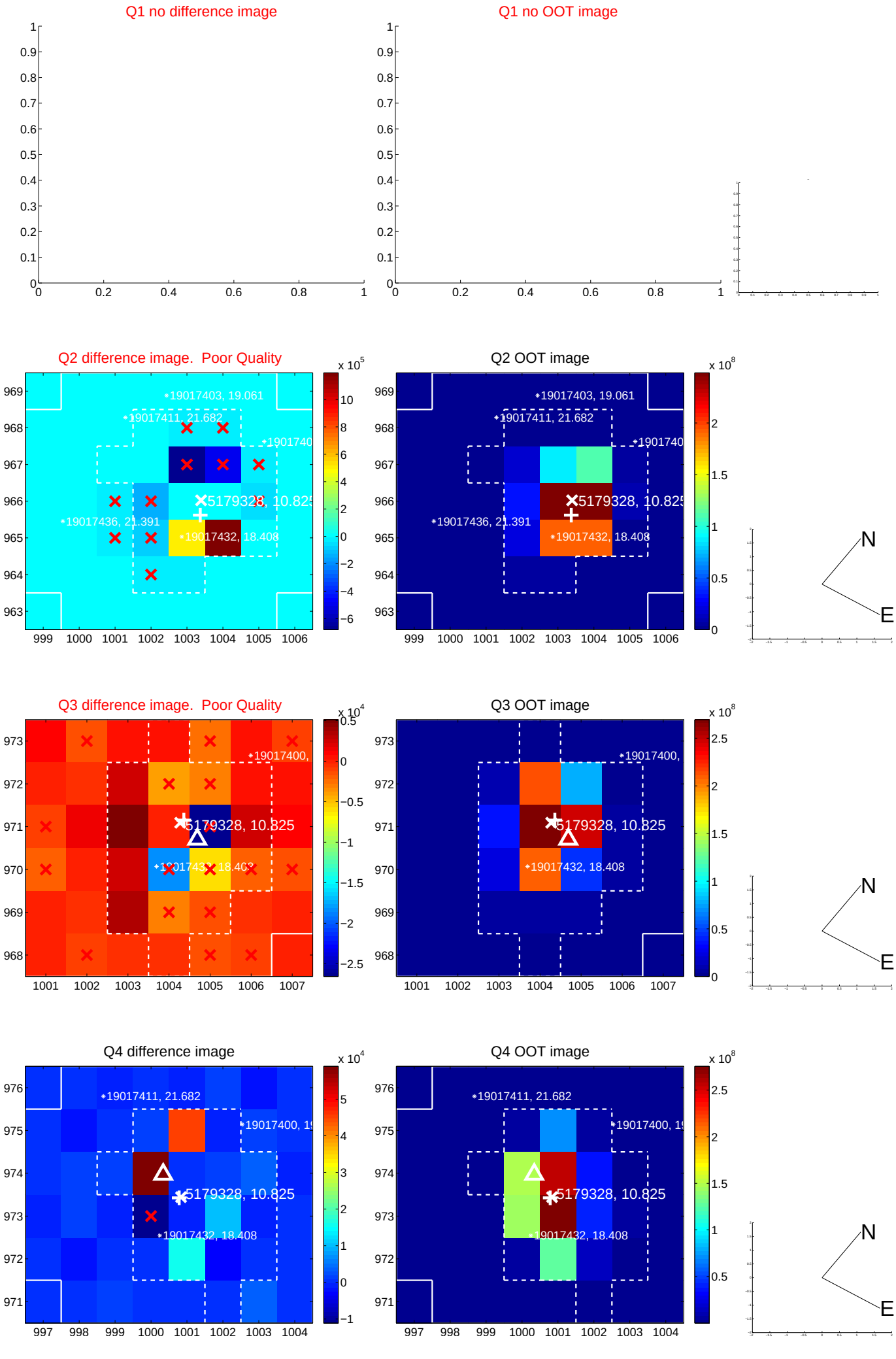
Supplemental centroid analysis for 005179328-07. Kepler magnitude: 10.82. Transit SNR 8.05
There are 4 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.40 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.196 ± 0.623	1.92	-0.573 ± 0.830	-1.050 ± 0.546
PRF-fit source offset from KIC position	1.096 ± 0.711	1.54	-0.151 ± 0.840	-1.086 ± 0.709
photometric centroid source offset	0.98 ± 0.64	1.53	-0.05 ± 0.47	-0.98 ± 0.64

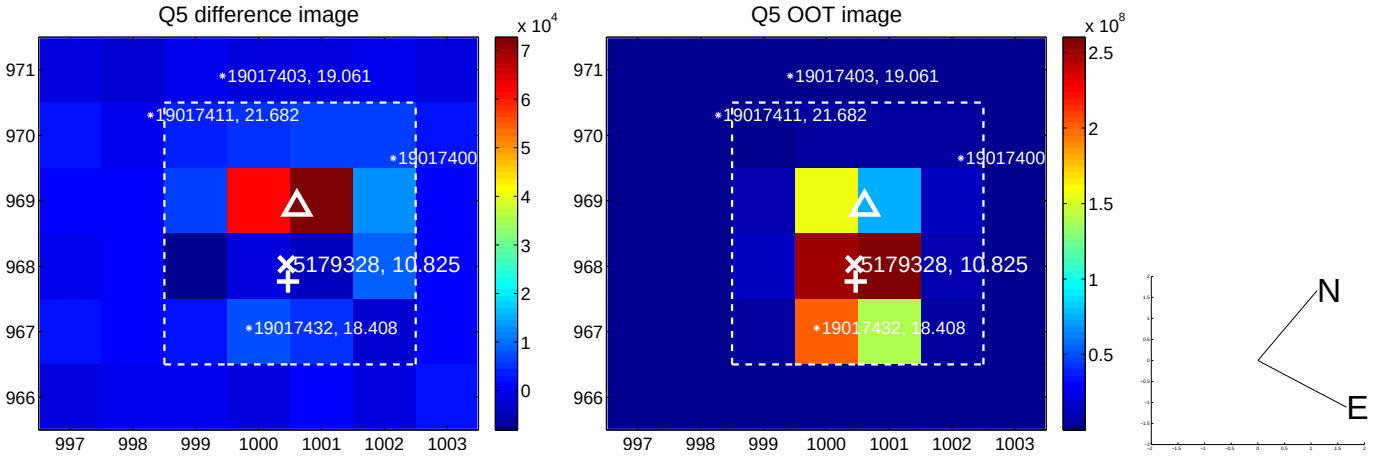


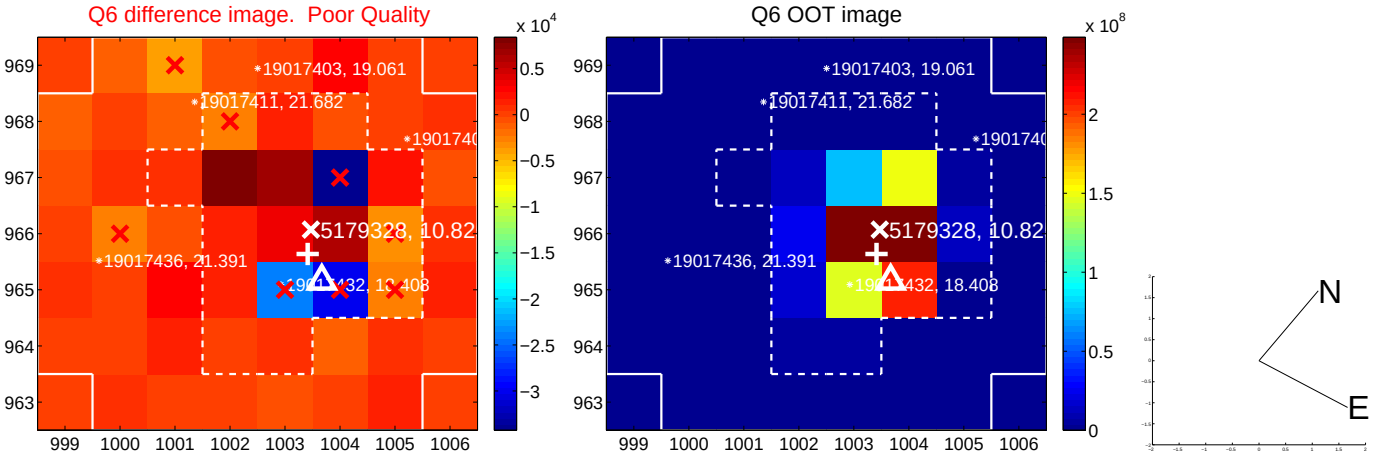
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs $> 15,000,000$ are from the UKIRT catalog.

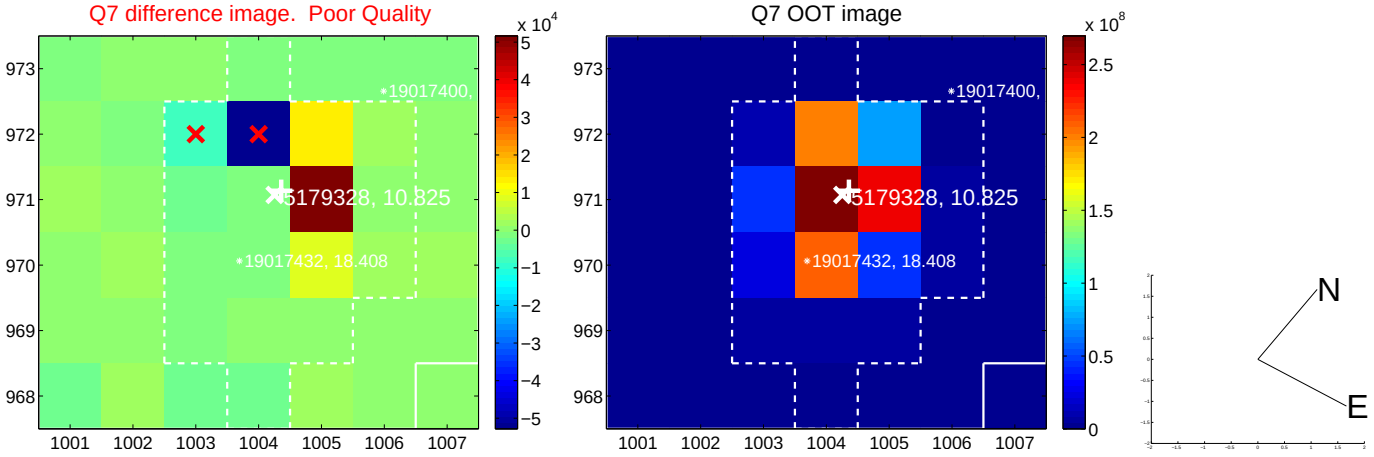
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

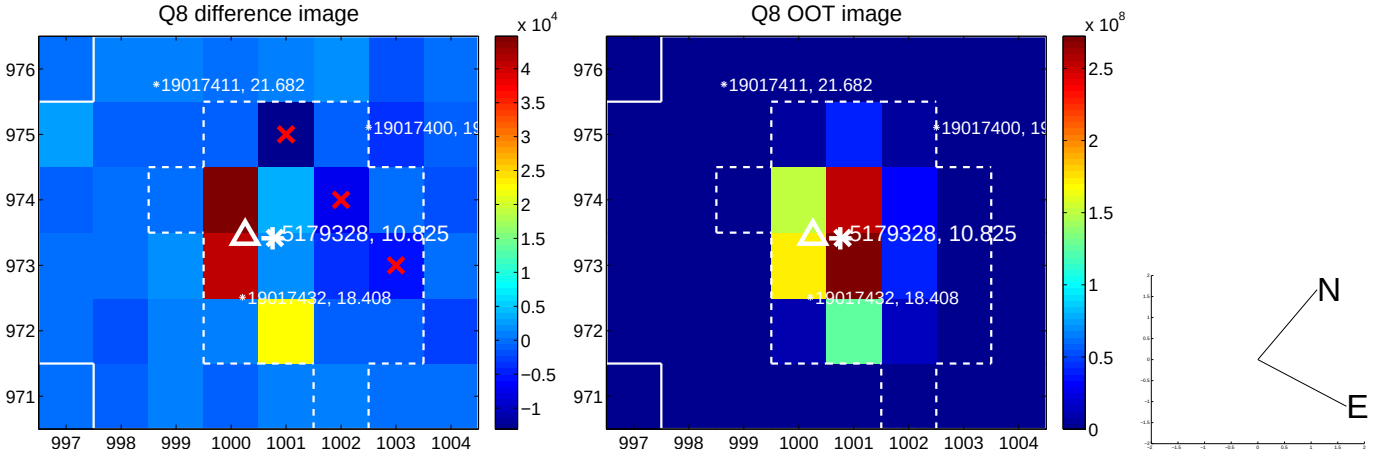


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

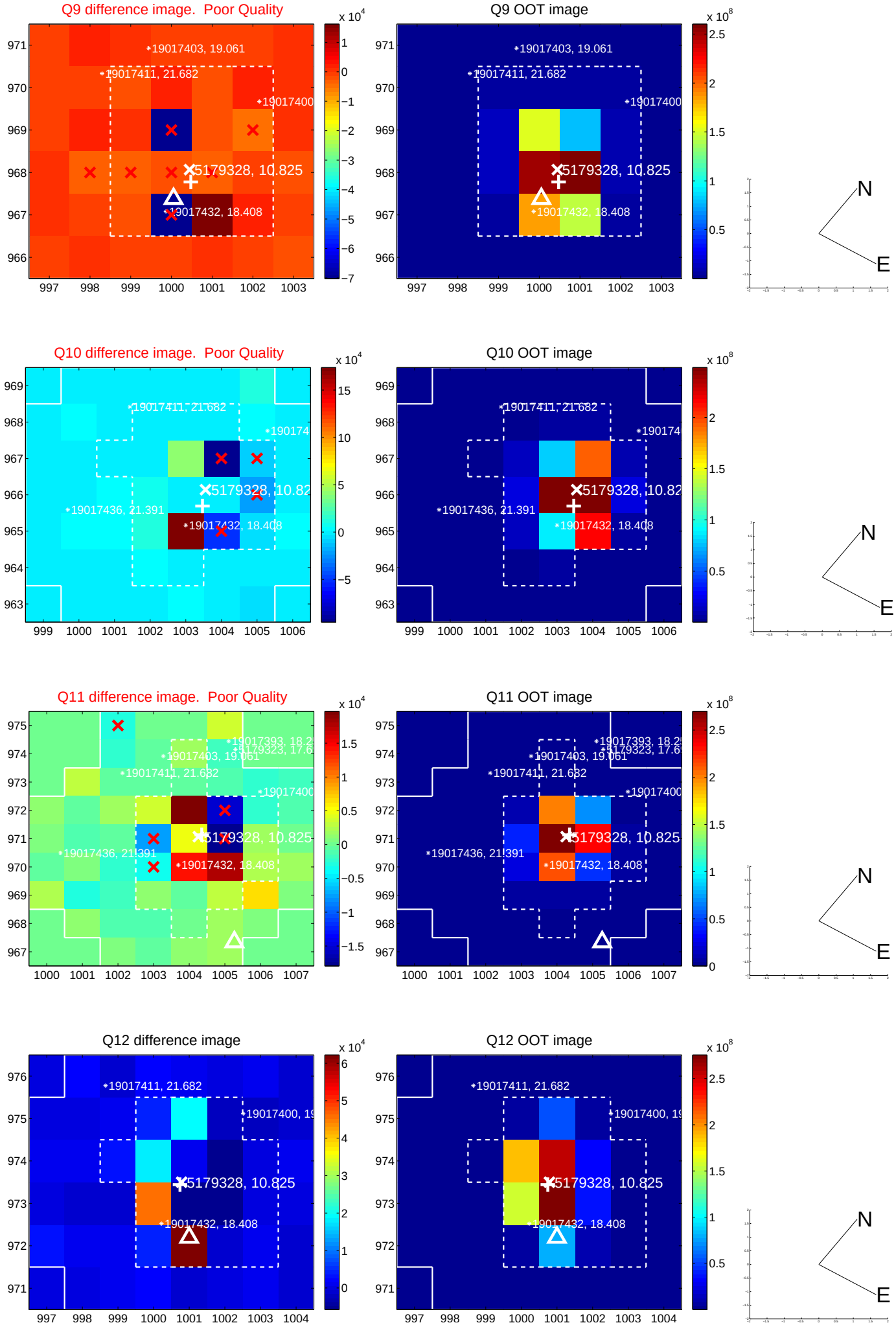




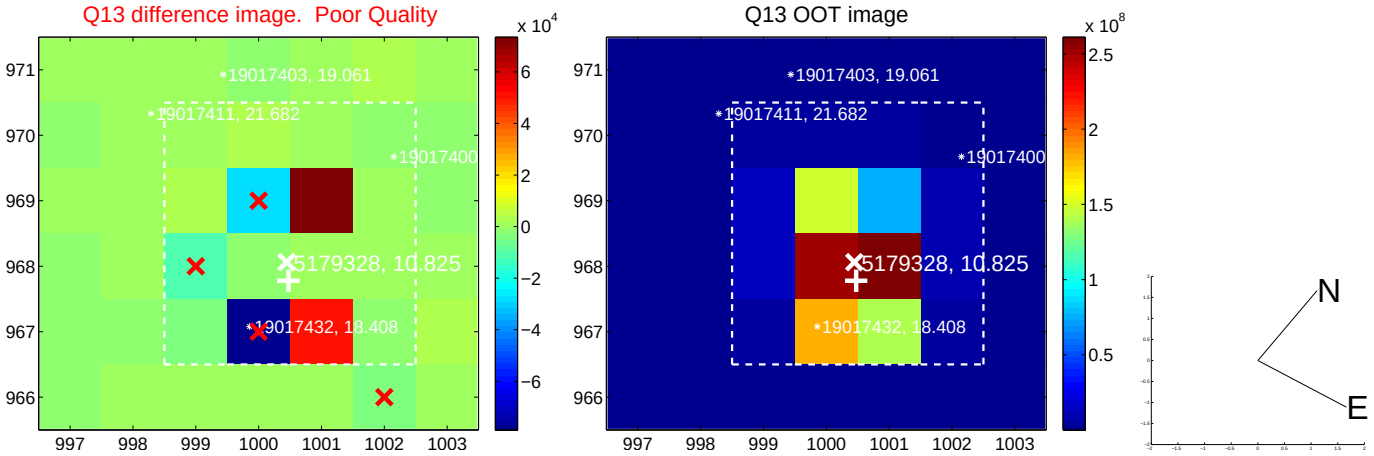


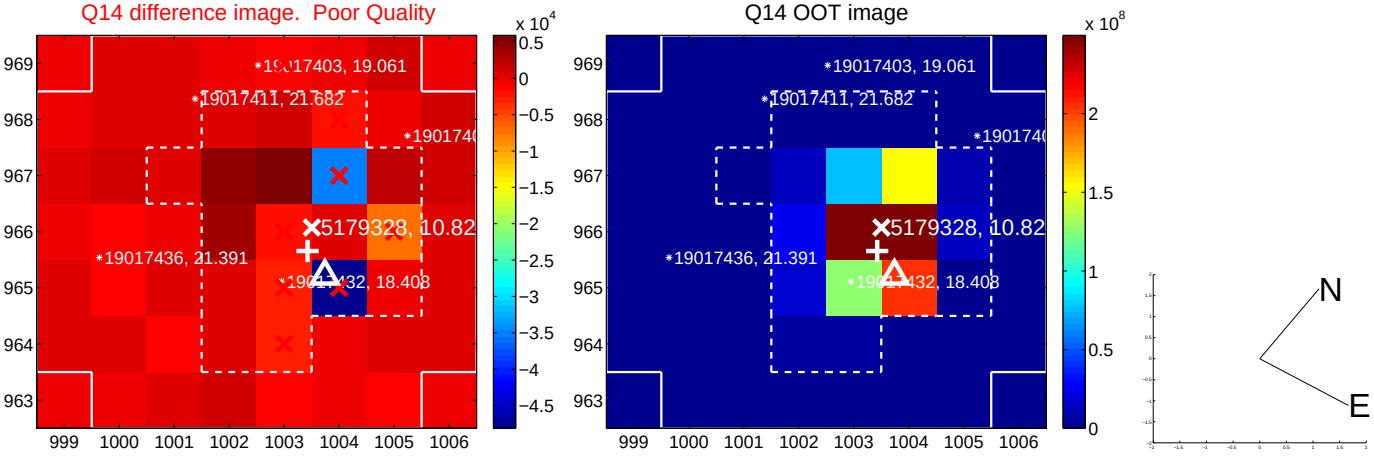


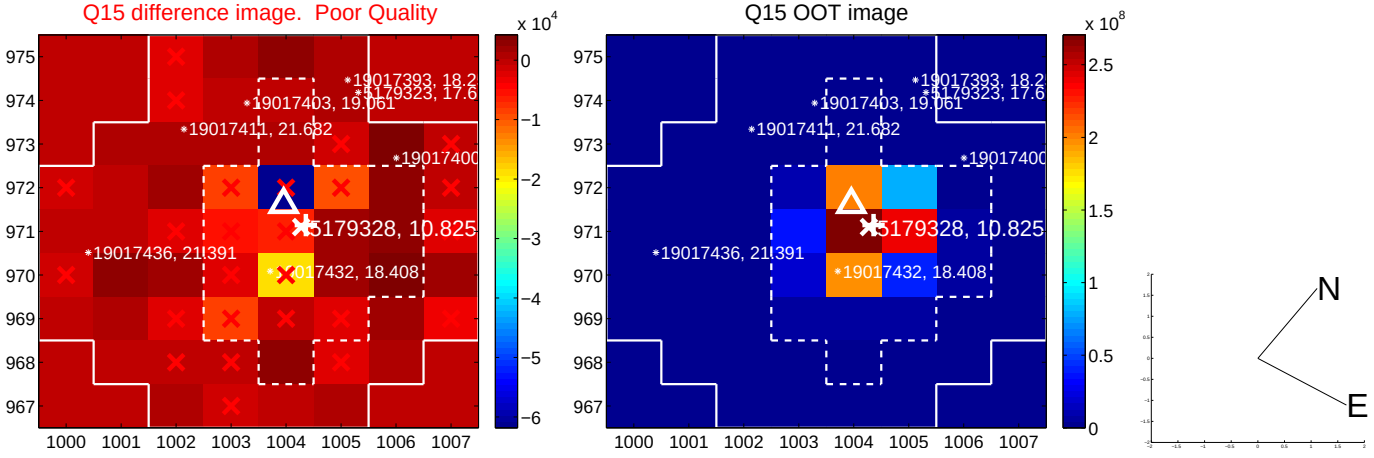
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

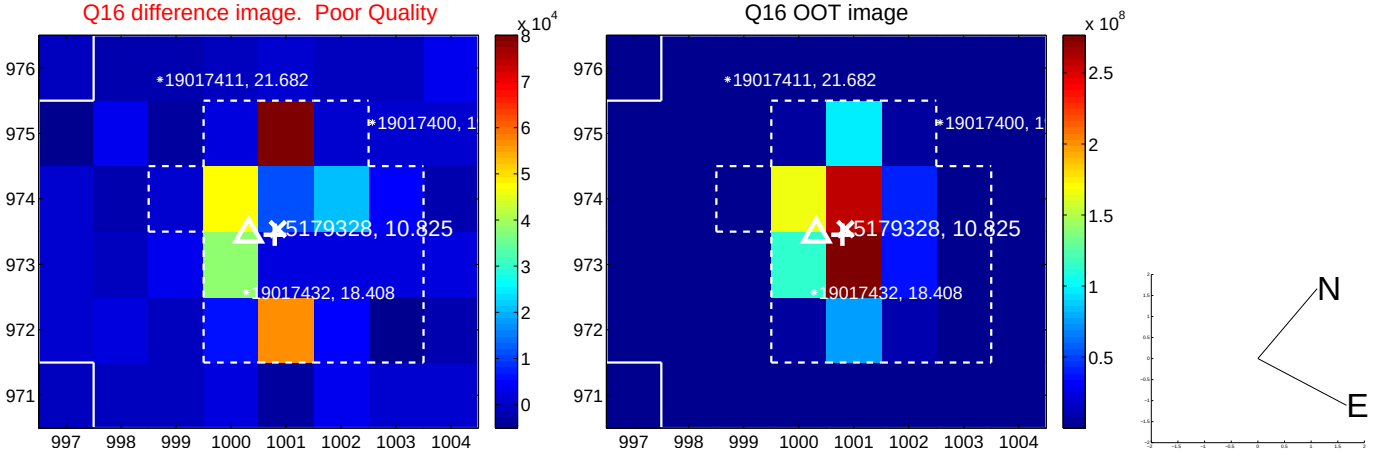


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

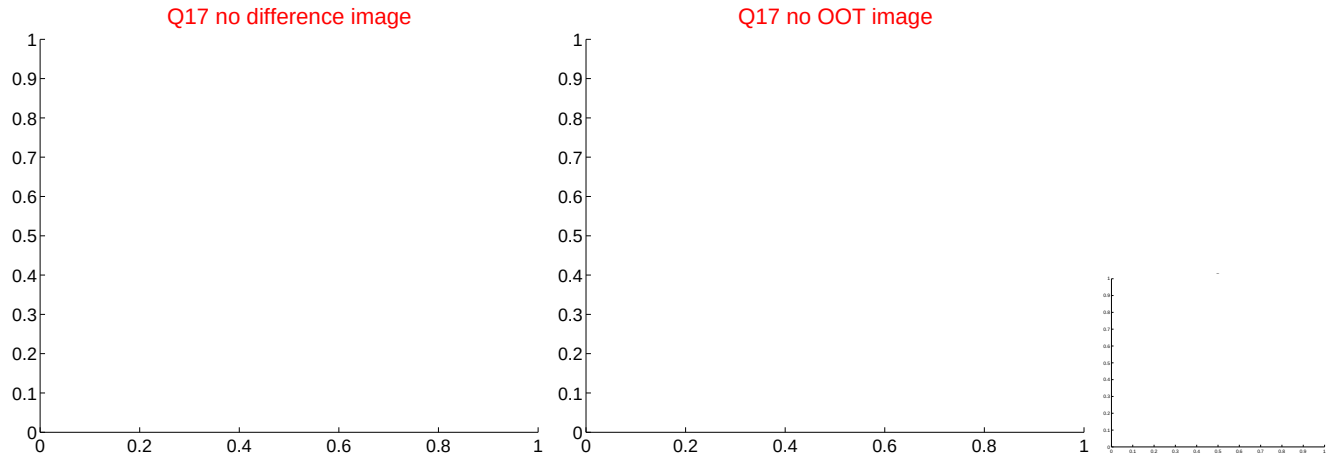


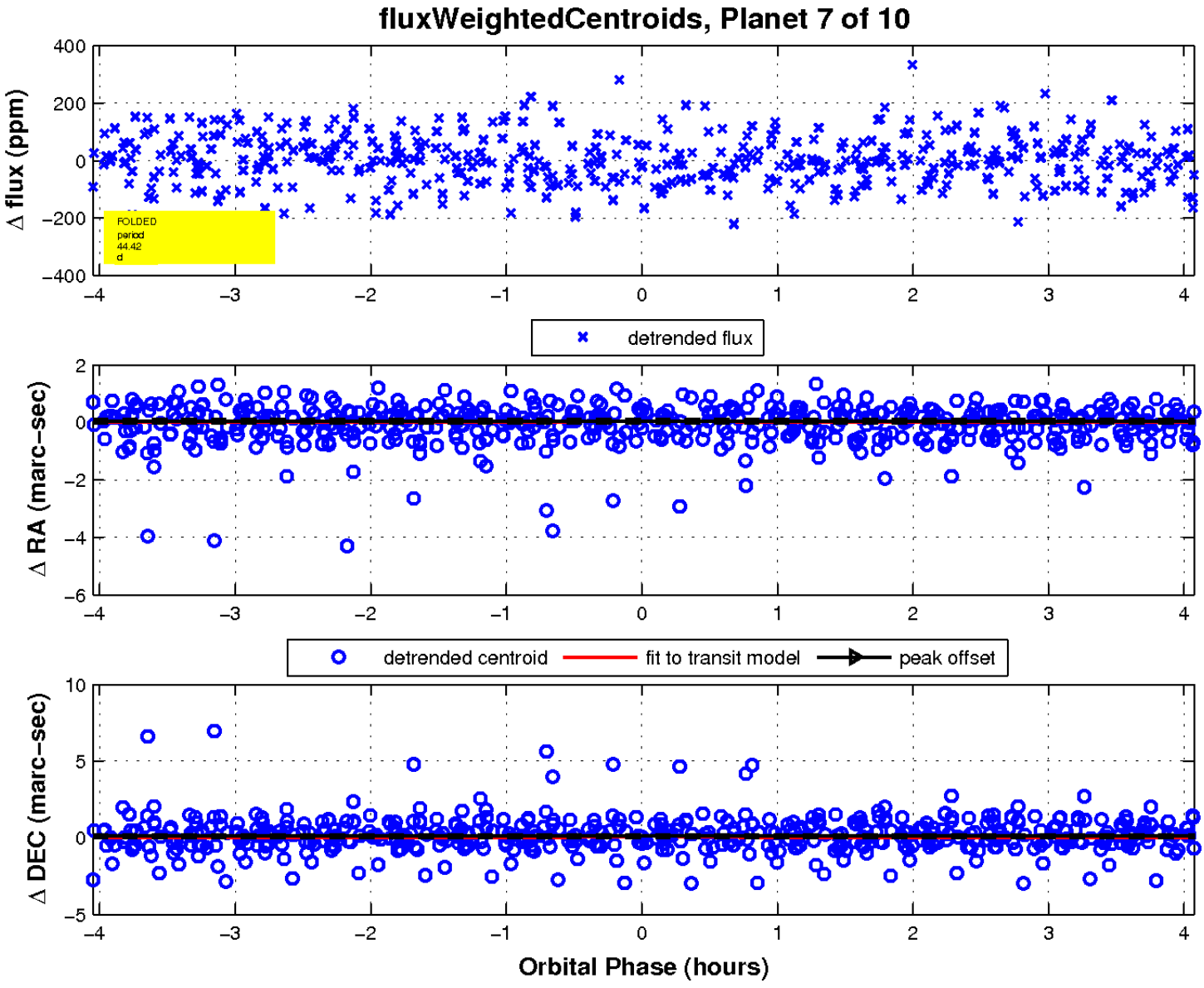




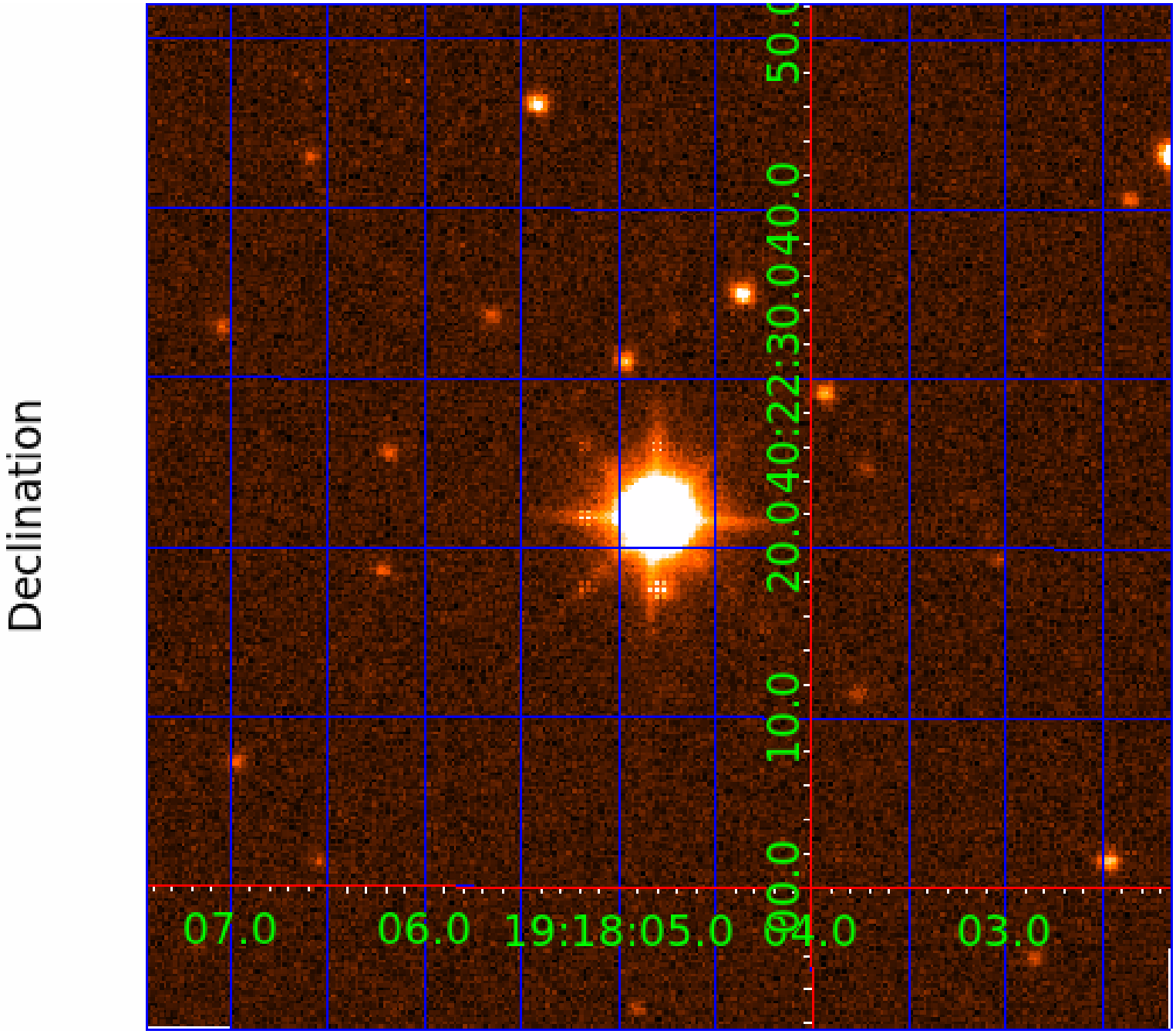


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image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04.0
03.0

KIC 005179328

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_\star$ ($R_\odot$)	$T_\star$ (K)	R_p ($R_\oplus$)	S_p ($S_\oplus$)
005179328-01	OBS	No	0.670370	131.764741	8.2	4.033	8.9	6.8	1.82	6762	0.60	21602.52
005179328-02	OBS	No	108.777871	185.898559	134.5	11.798	8.4	7.9	1.82	6762	2.36	24.41
005179328-04	OBS	No	50.596736	179.377582	7.5	0.919	9.0	0.3	1.82	6762	0.58	67.73
005179328-05	OBS	No	321.707316	141.046541	229.4	5.303	8.6	8.1	1.82	6762	3.00	5.75
005179328-06	OBS	No	102.672857	201.159806	177.8	2.224	8.2	8.7	1.82	6762	2.73	26.36
005179328-07	OBS	No	44.423528	165.932506	153.8	1.359	9.2	8.0	1.82	6762	2.58	80.56
005179328-08	OBS	No	31.414157	133.679706	116.3	2.102	8.4	9.1	1.82	6762	2.27	127.87
005179328-09	OBS	No	77.609623	148.121983	124.0	4.261	8.7	7.2	1.82	6762	2.30	38.29
005179328-10	OBS	No	125.588996	139.259222	156.4	9.832	8.1	8.6	1.82	6762	2.43	20.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005179328-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
005179328-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_SATURATED
005179328-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_SATURATED
005179328-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

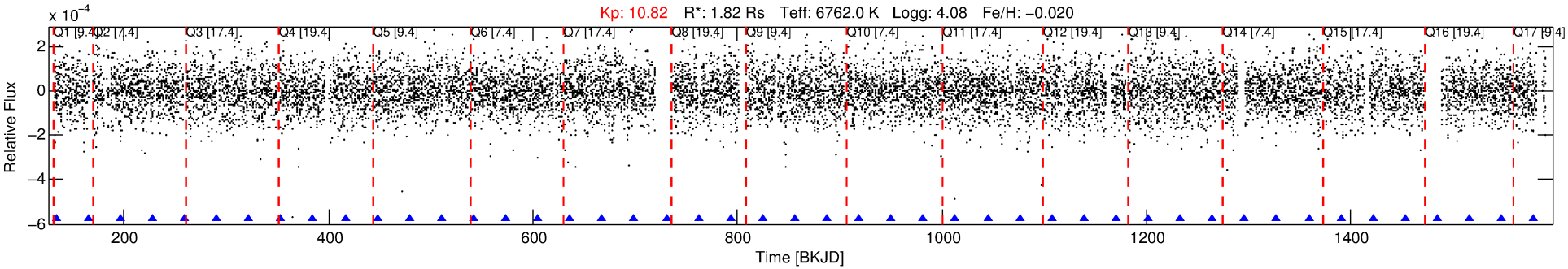
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

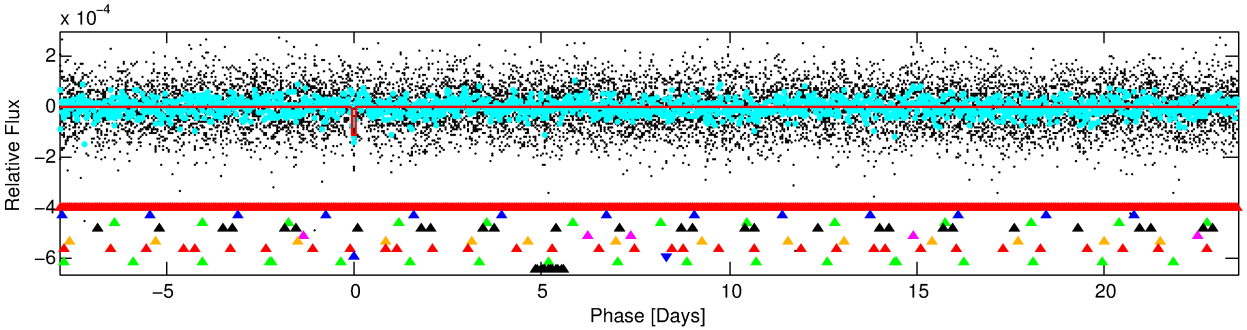
Ephemeris Match Information For 005179328-08

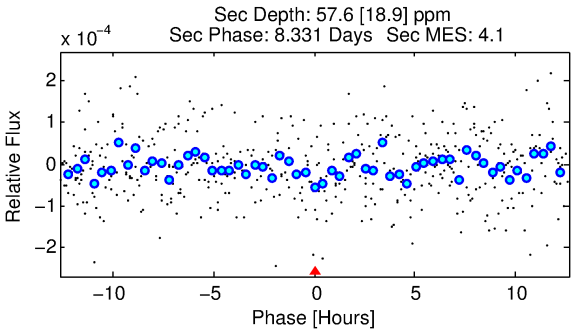
No Significant Match Found

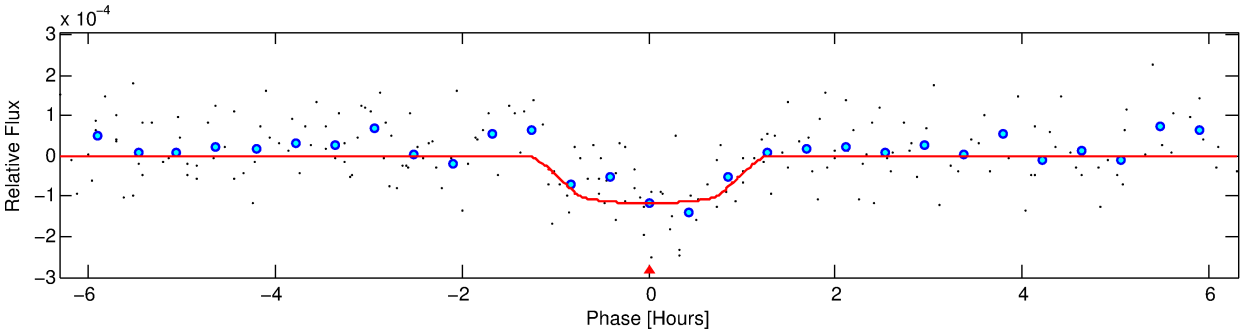
DV One-Page Summary

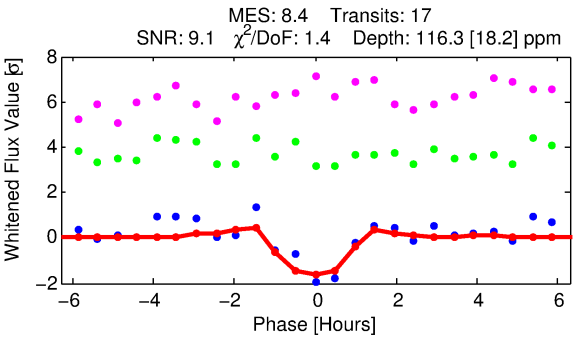
KIC: 5179328 Candidate: 8 of 10 Period: 31.414 d

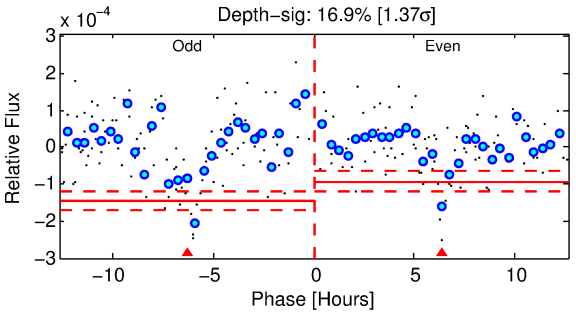


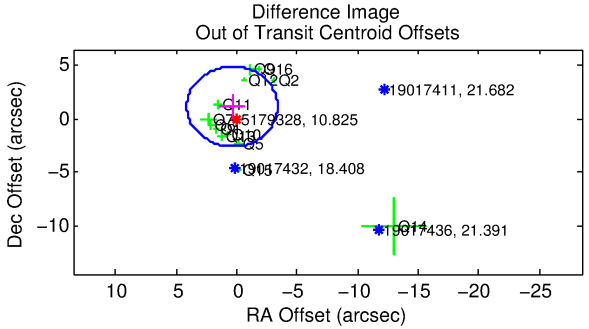












DV Fit Results:

Period = 31.41416 [0.00027] d
Epoch = 133.6797 [0.0072] BKJD
Rp/R* = 0.0114 [0.0073]
a/R* = 54.86 [201.11]
b = 0.89 [0.87]

Seff = 127.87 [32.88]
Teq = 857 [55] K
Rp = 2.27 [1.50] Re
a = 0.2200 [0.0366] AU

Ag = 297.74 [397.74] [0.75σ]
Teffp = 5507 [1807] K [2.57σ]

DV Diagnostic Results:

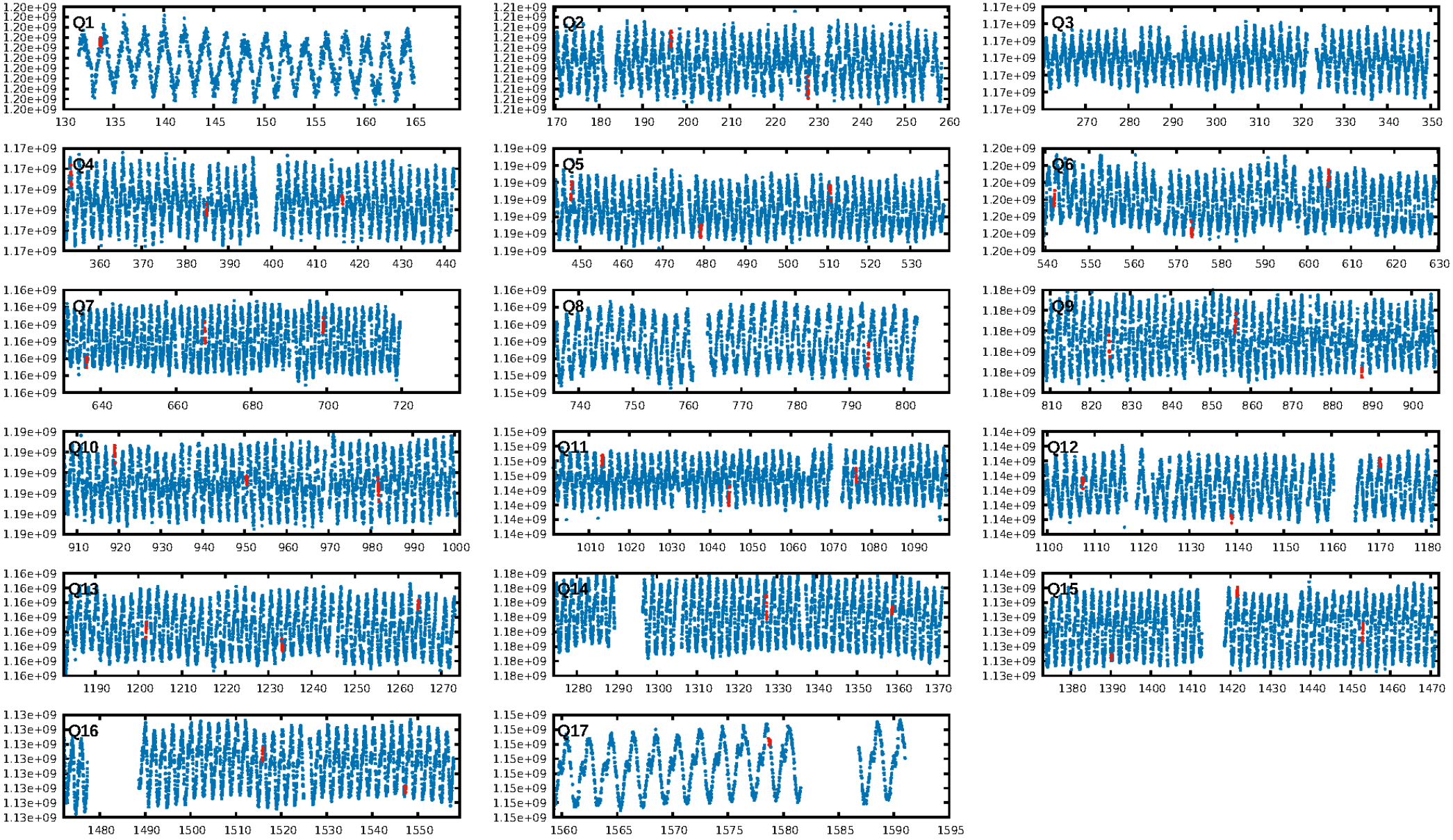
ShortPeriod−sig: 100.0% [162.22σ]
LongPeriod−sig: 100.0% [124.72σ]
ModelChiSquare2−sig: 23.9%
ModelChiSquareGof−sig: 100.0%
Bootstrap−pfa: N/A
RollingBand−fgt: 1.00 [16/16]
GhostDiagnostic−chr: 2.379

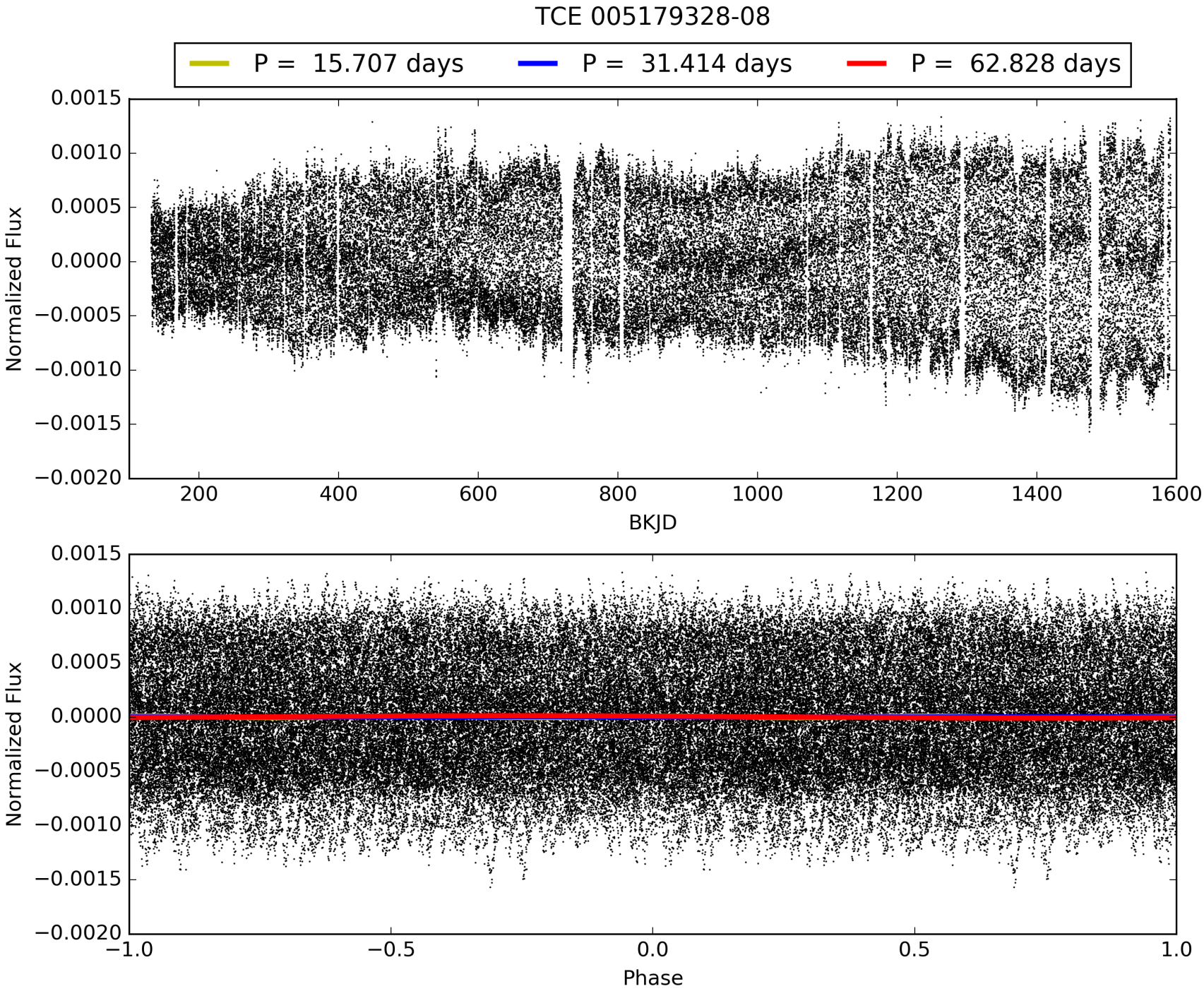
Centroid−sig: 15.8%
Centroid−so: 0.668 arcsec [1.27σ]
OotOffset−rm: 1.212 arcsec [0.97σ]
KicOffset−rm: 0.714 arcsec [0.61σ]
OotOffset−st: 4/3/2/4 [13]
KicOffset−st: 4/3/2/4 [13]
DiffImageQuality−fgm: 0.31 [4/13]
DiffImageOverlap−fno: 0.00 [0/16]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 −− Date Generated: 01−Feb−2016 20:02:54 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005179328-08, PDC Light Curves




TCE 005179328-08
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P = 31.414 days
P = 62.828 days
Normalized Flux
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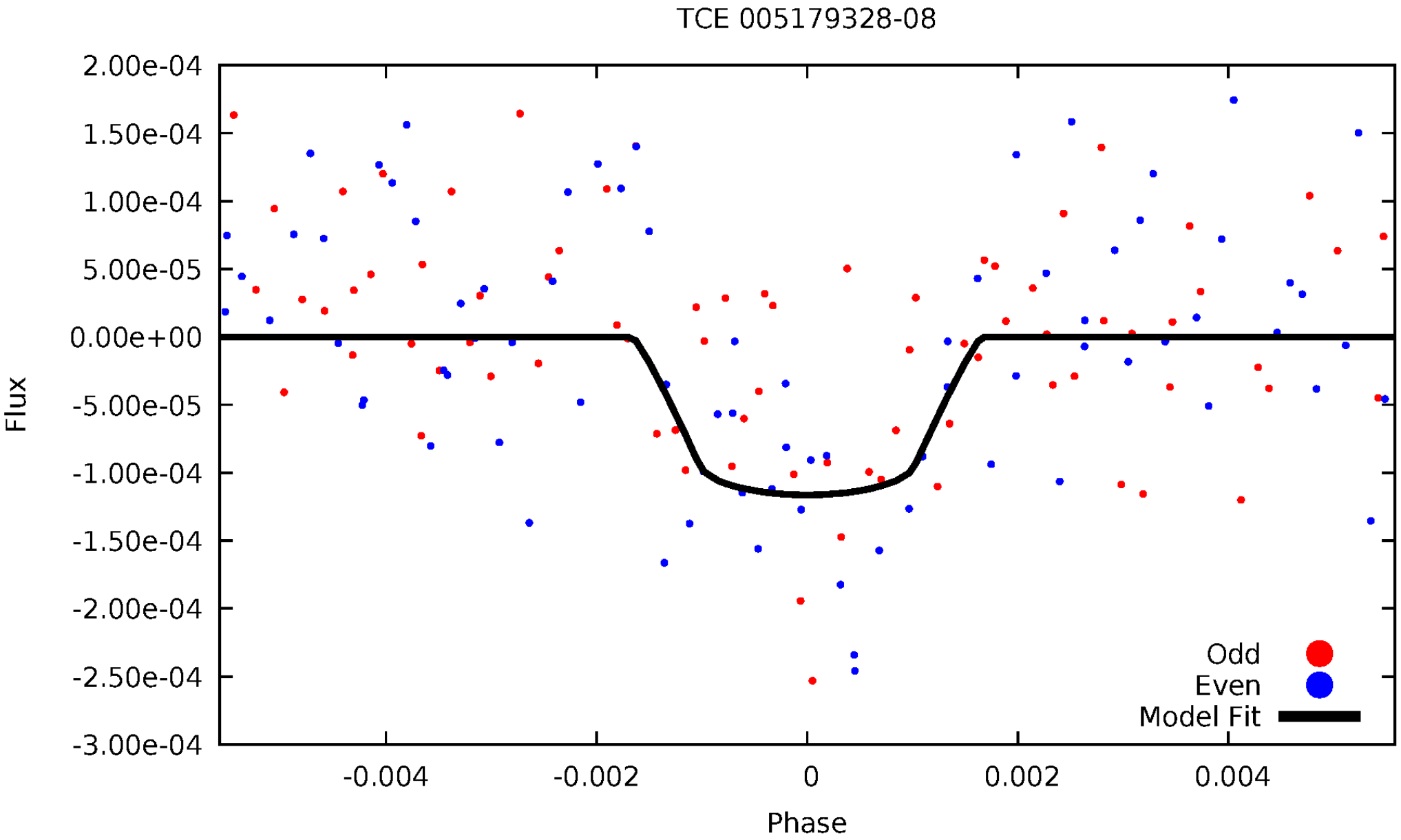
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015
−0.0020
200
400
600
800
1000
1200
1400
1600
BKJD
Normalized Flux
−1.0
−0.5
0.0
0.5
1.0
Phase

DV Odd/Even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-1.50e-04
-2.00e-04
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Flux
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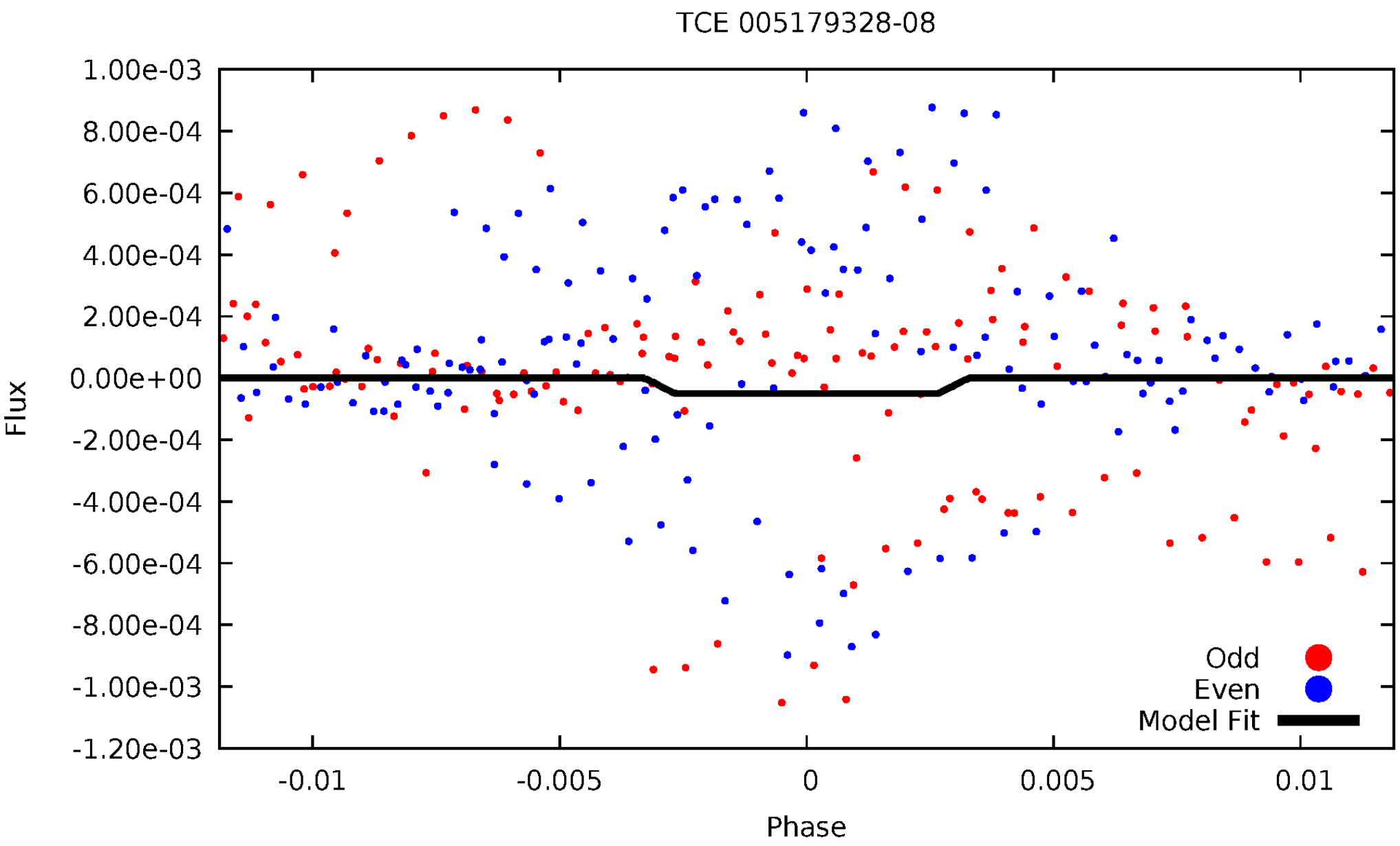
0
0.002
0.004
Phase
Odd
Even
Model Fit


ALT Odd/Even
TCE 005179328-08
1.00e-03
8.00e-04
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4.00e-04
2.00e-04
0.00e+00
-2.00e-04
-4.00e-04
-6.00e-04
-8.00e-04
-1.00e-03
-1.20e-03
Flux
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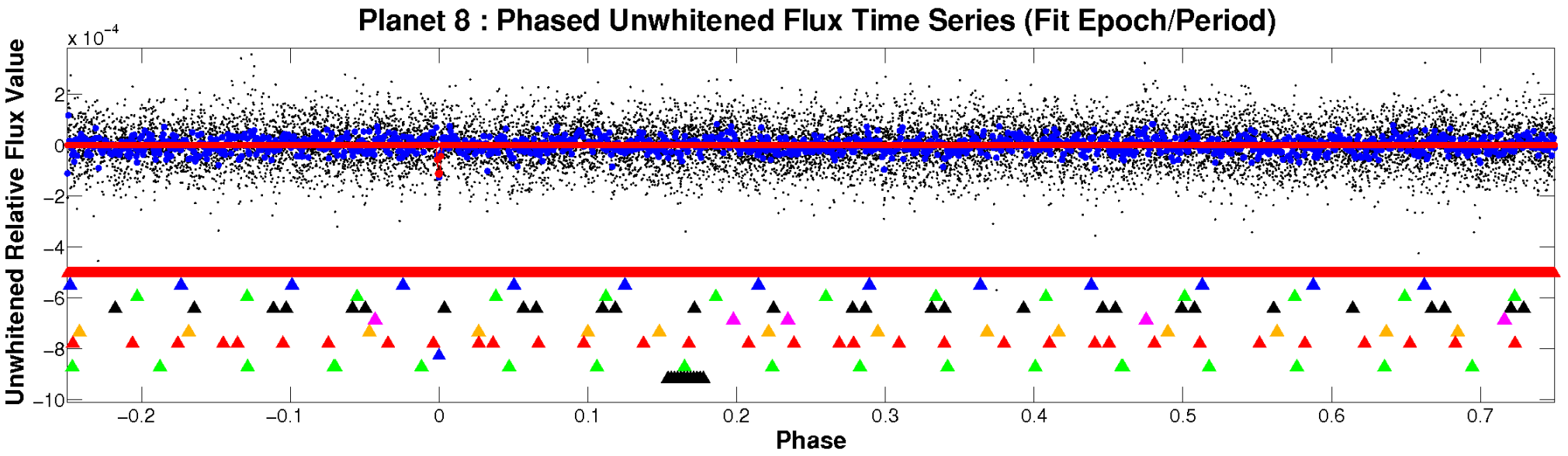
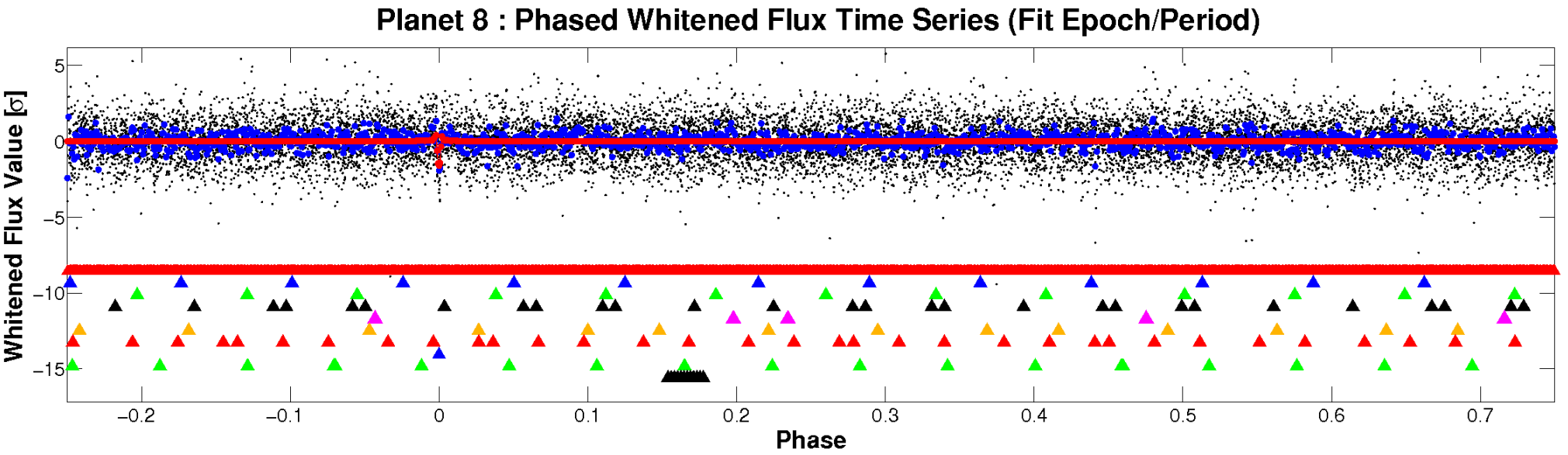
0
0.005
0.01
Phase
Odd
Even
Model Fit

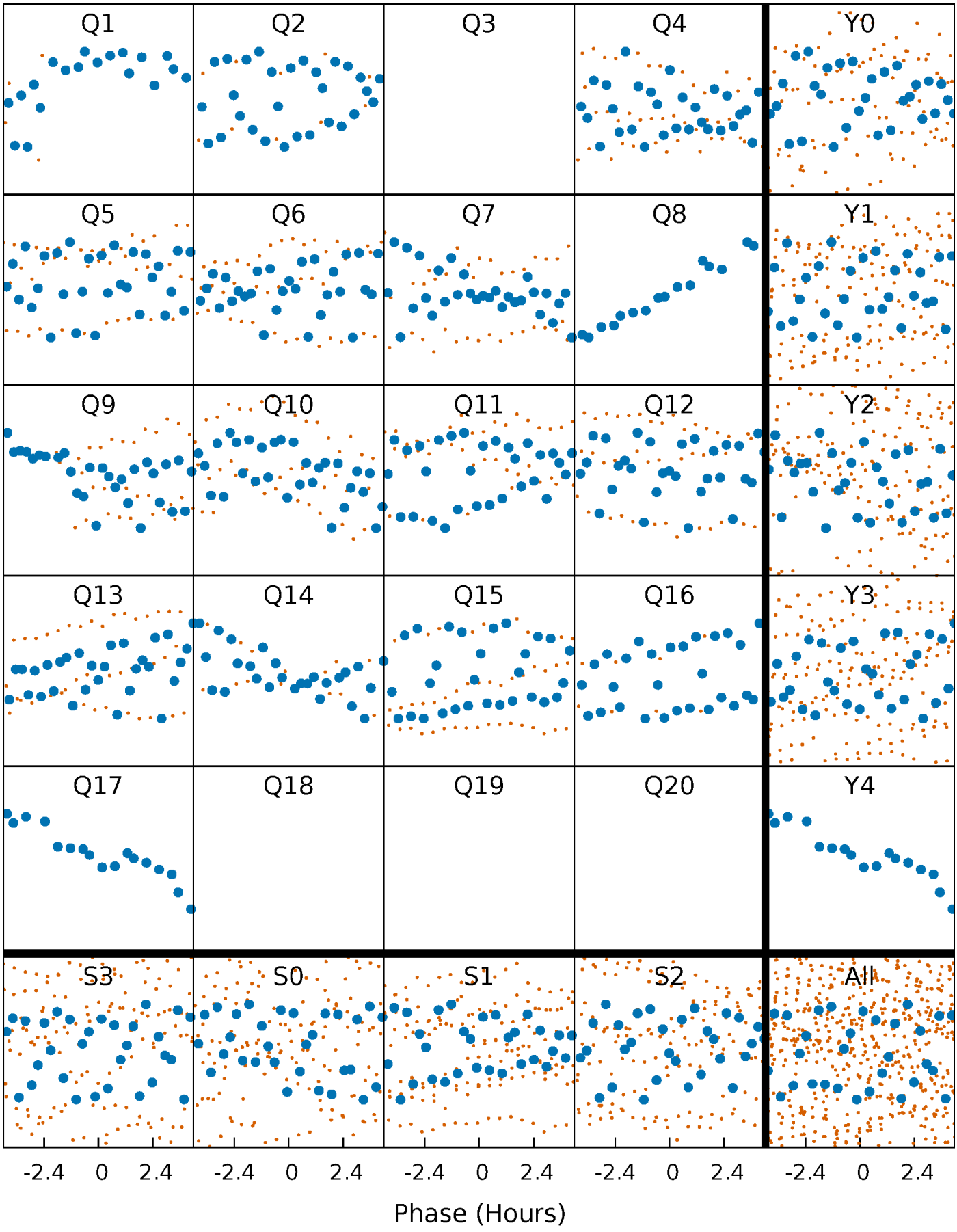
Non-Whitened Vs. Whitened Light Curve





PDC Quarter-Phased Transit Curves

TCE 005179328-08 P= 31.414157 Days T_0=133.679706 (BKJD)



DV Quarter-Phased Transit Curves

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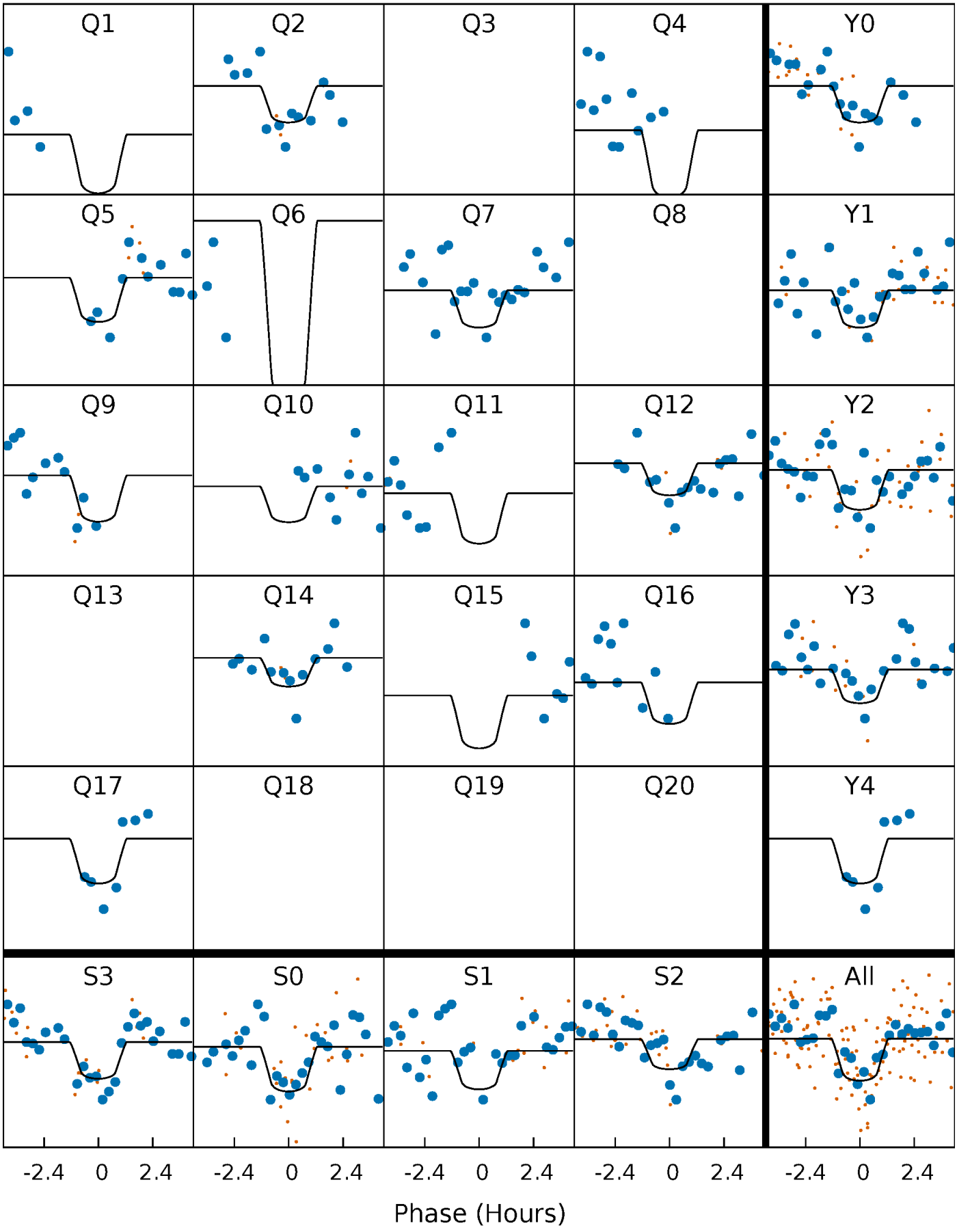
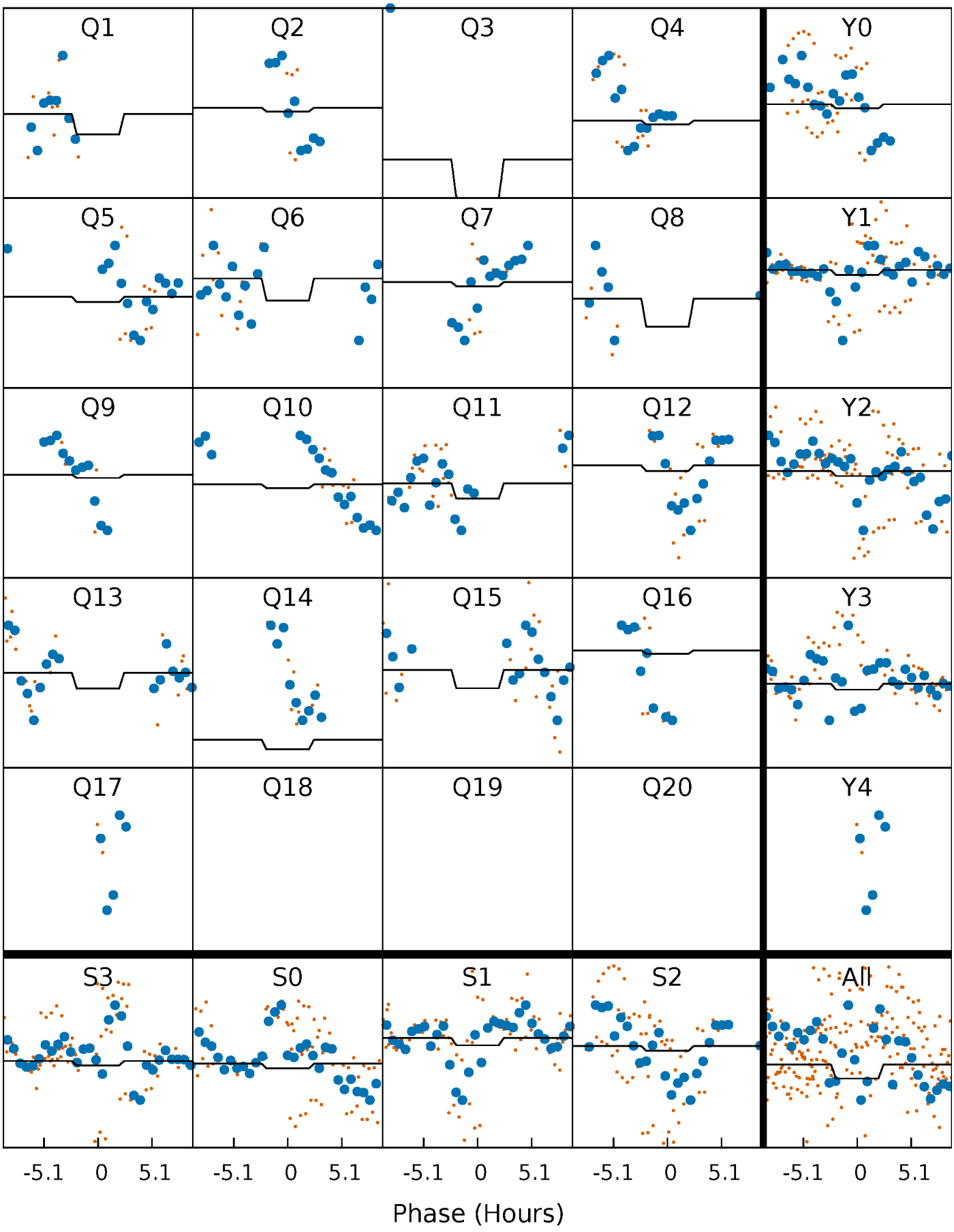


Alt. Detrend Quarter-Phased Transit Curves

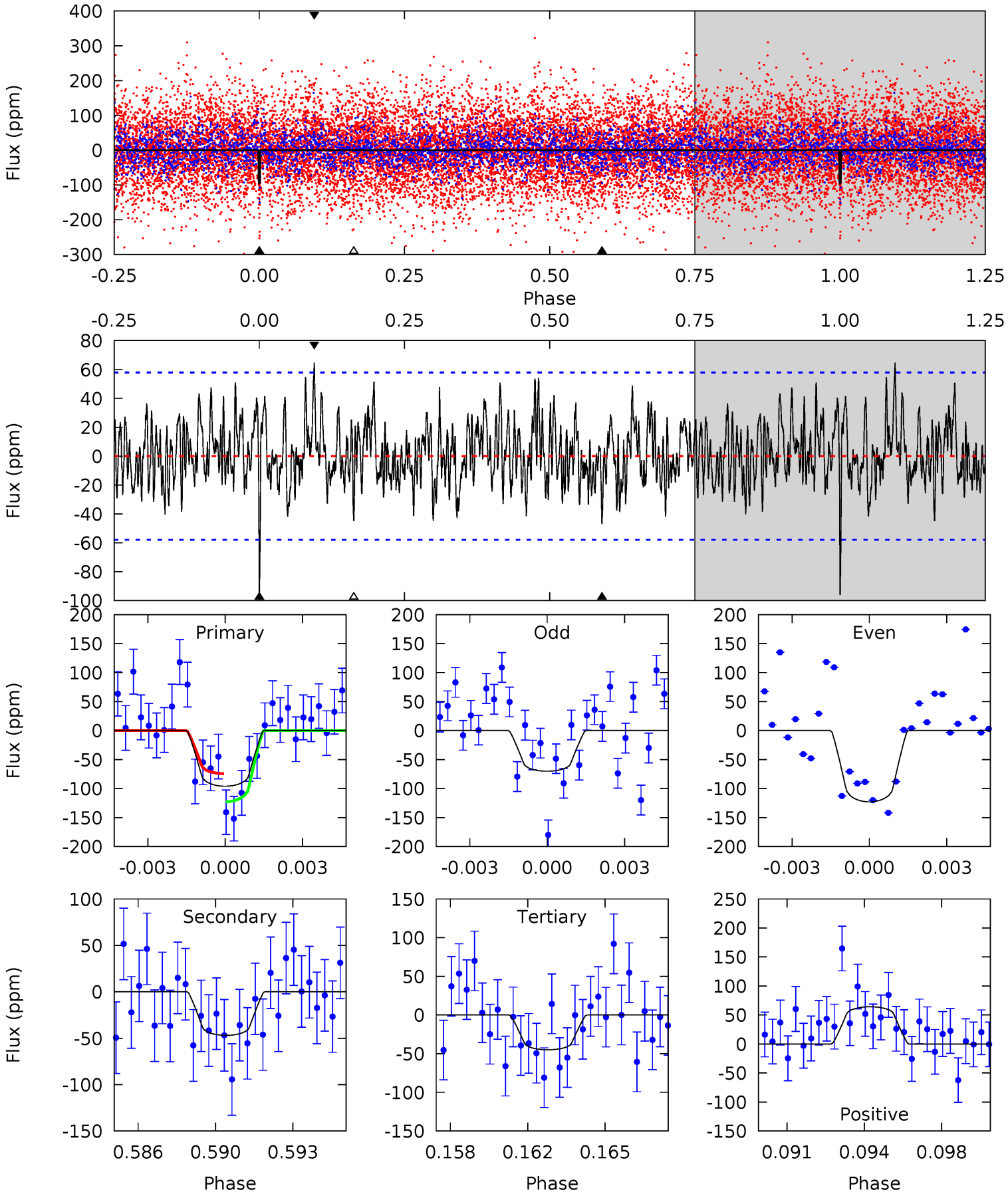
TCE 005179328-08 P= 31.414223 Days T_0=133.647662 (BKJD)



DV Model-Shift Uniqueness Test

005179328-08, P = 31.414157 Days, E = 102.265549 Days

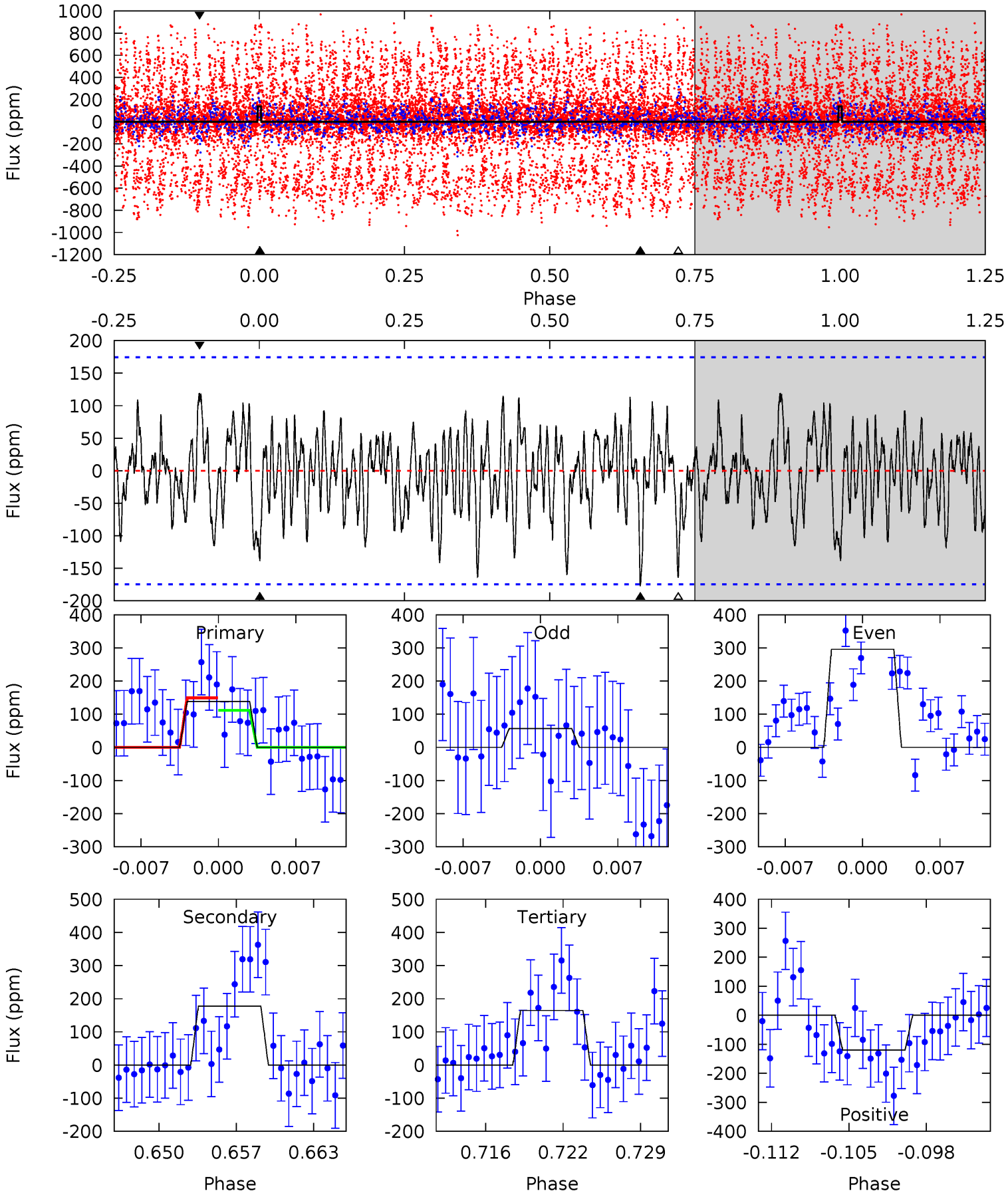
Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.67	4.24	4.06	5.79	5.23	2.93	1.67	4.61	2.87	0.18	-1.55	2.42	0.70	0.40	2.19



Alt Model-Shift Uniqueness Test

005179328-08, P = 31.414223 Days, E = 102.233439 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.06	5.19	4.81	3.50	5.11	2.72	1.51	-0.75	0.56	0.39	1.70	3.44	-0.15	0.40	0.56



Stellar Parameters For KIC 005179328

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6762^{+81}_{-81}	$4.077^{+0.143}_{-0.117}$	$-0.020^{+0.150}_{-0.150}$	$1.818^{+0.307}_{-0.341}$	$1.444^{+0.115}_{-0.115}$	$0.338^{+0.242}_{-0.122}$
	+1%/-1%	+4%/-3%	+750%/-750%	+17%/-19%	+8%/-8%	+72%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005179328-08 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-47±11	$2.37^{+1.50}_{-1.26}$	1198^{+55}_{-56}	5128^{+2293}_{-880}	219^{+721}_{-135}
Alt.	-178±34	$1.75^{+1.28}_{-1.16}$	1197^{+56}_{-60}	8457^{+14166}_{-2196}	1485^{+12049}_{-985}

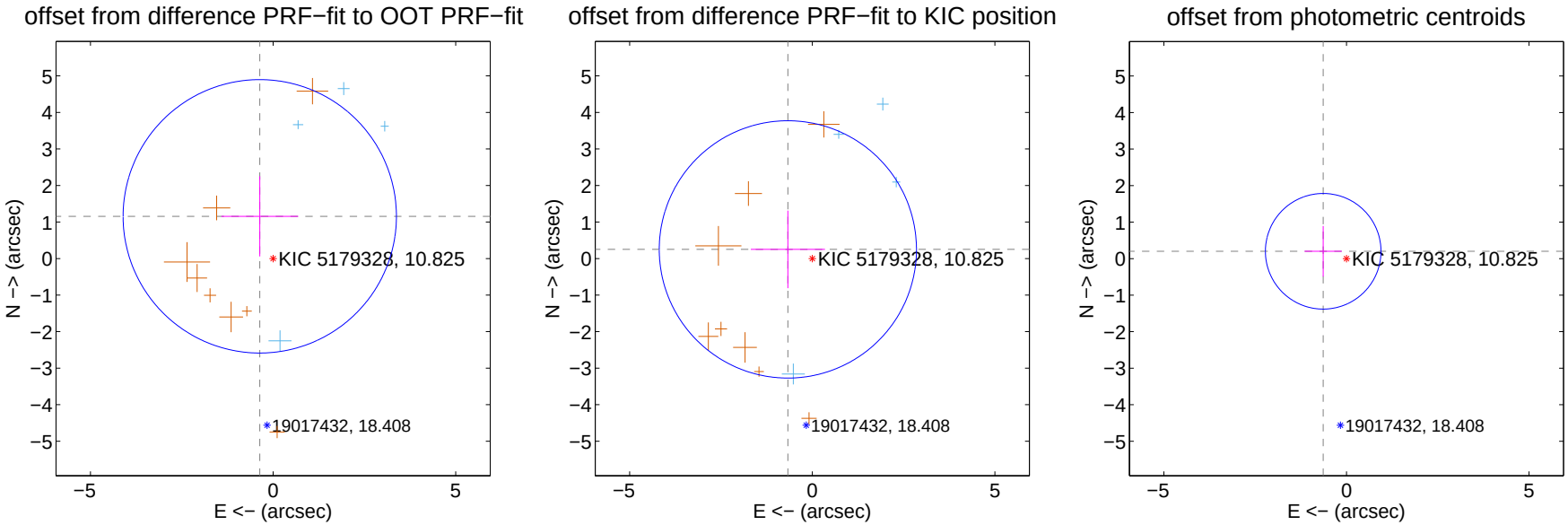
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

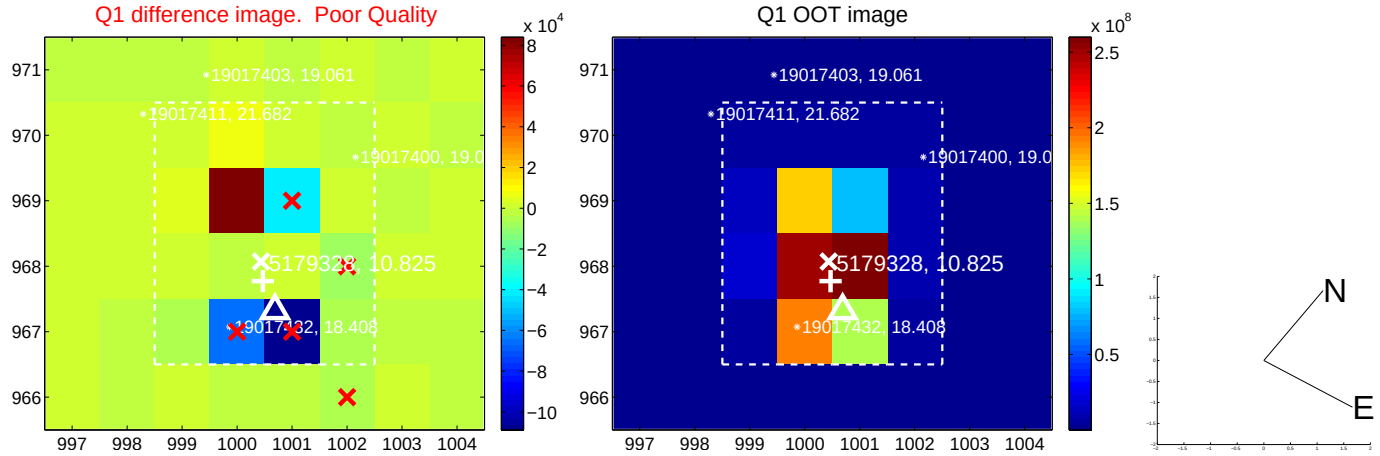
Supplemental centroid analysis for 005179328-08. Kepler magnitude: 10.82. Transit SNR 9.12
There are 4 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.42 arcsec

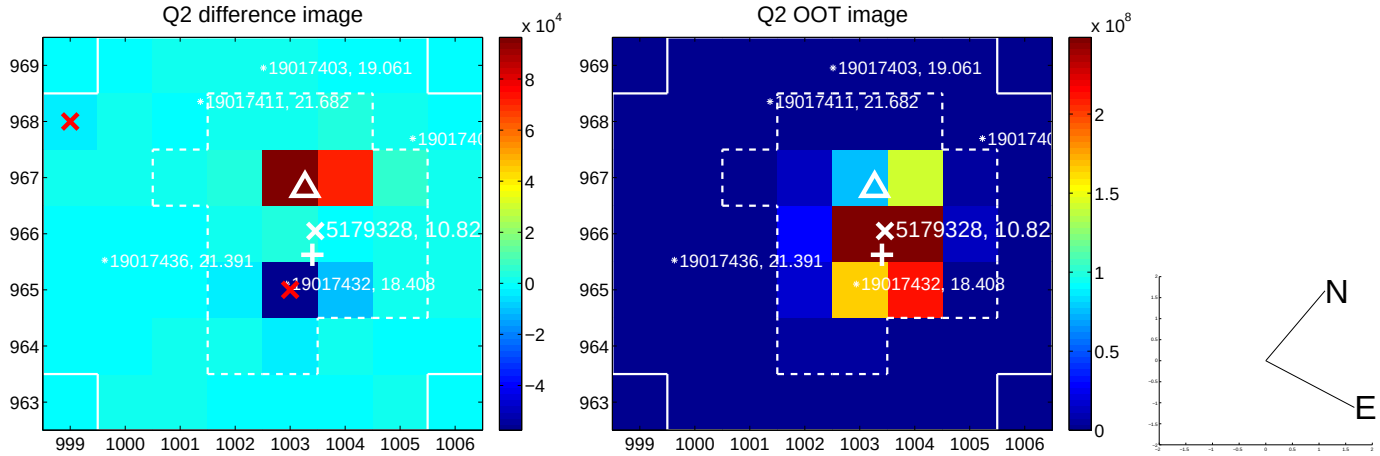
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.212 ± 1.247	0.97	0.365 ± 1.052	1.155 ± 1.097
PRF-fit source offset from KIC position	0.714 ± 1.174	0.61	0.668 ± 1.015	0.250 ± 1.063
photometric centroid source offset	0.67 ± 0.53	1.27	0.64 ± 0.51	0.20 ± 0.69

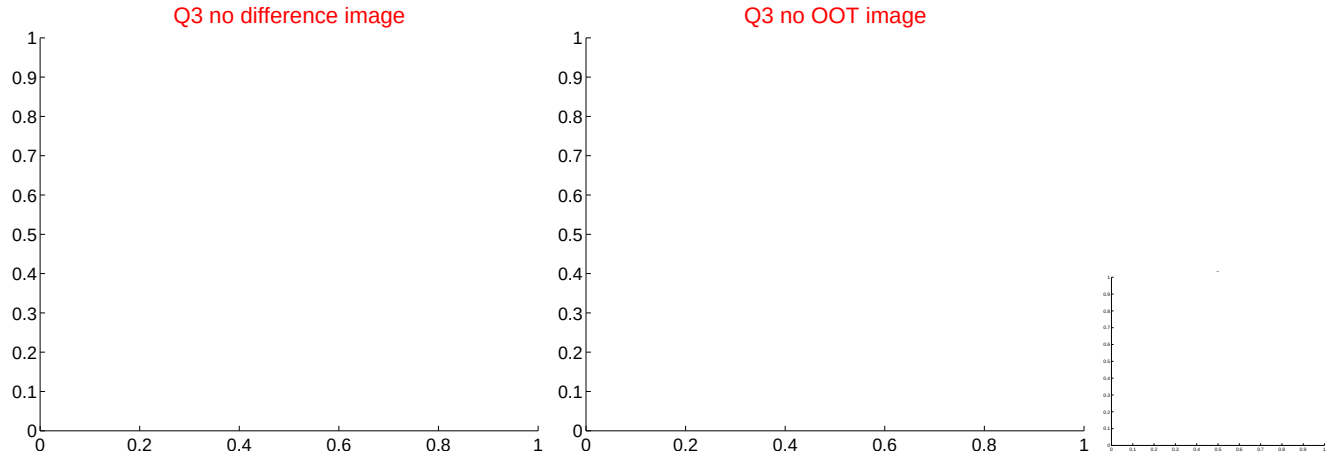


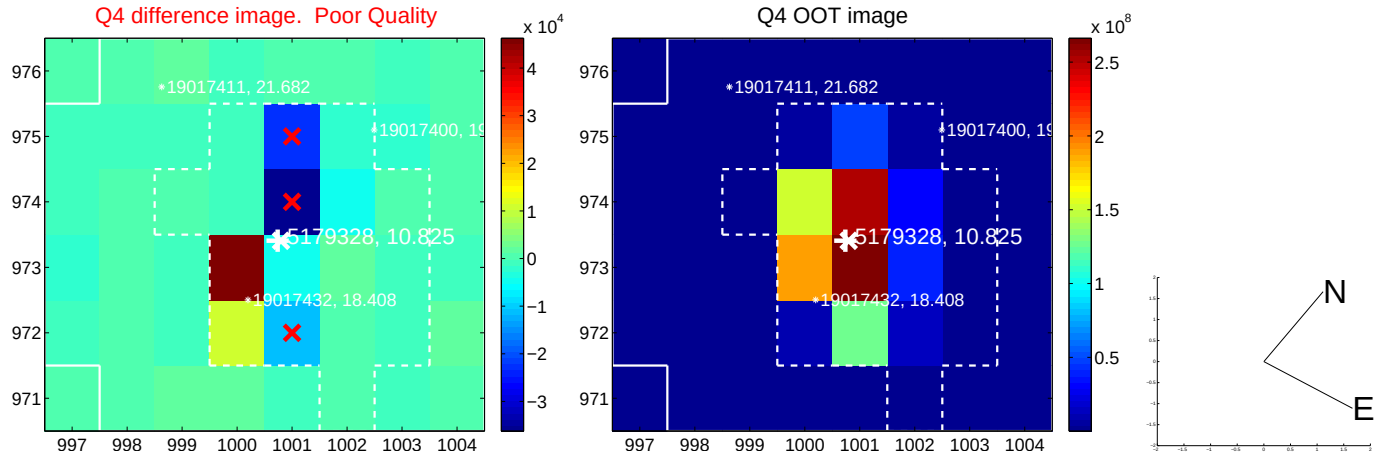
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs $> 15,000,000$ are from the UKIRT catalog.

white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

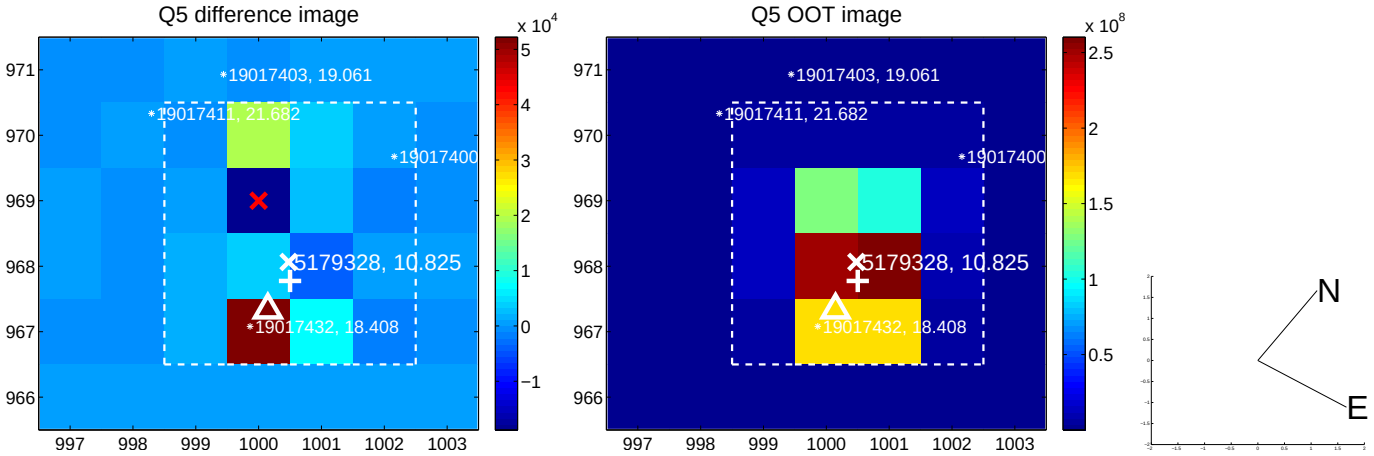


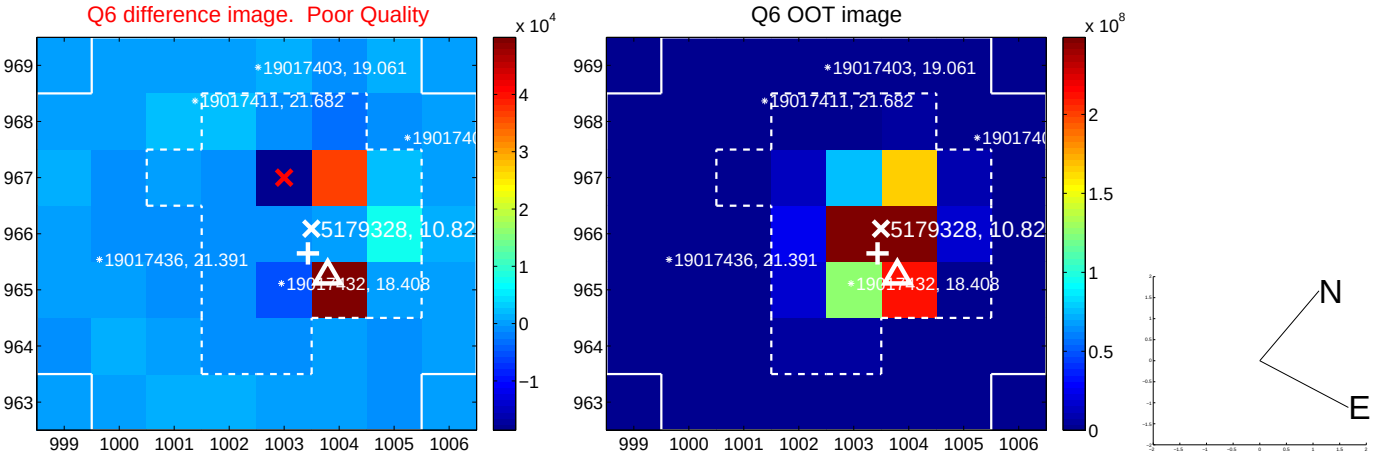


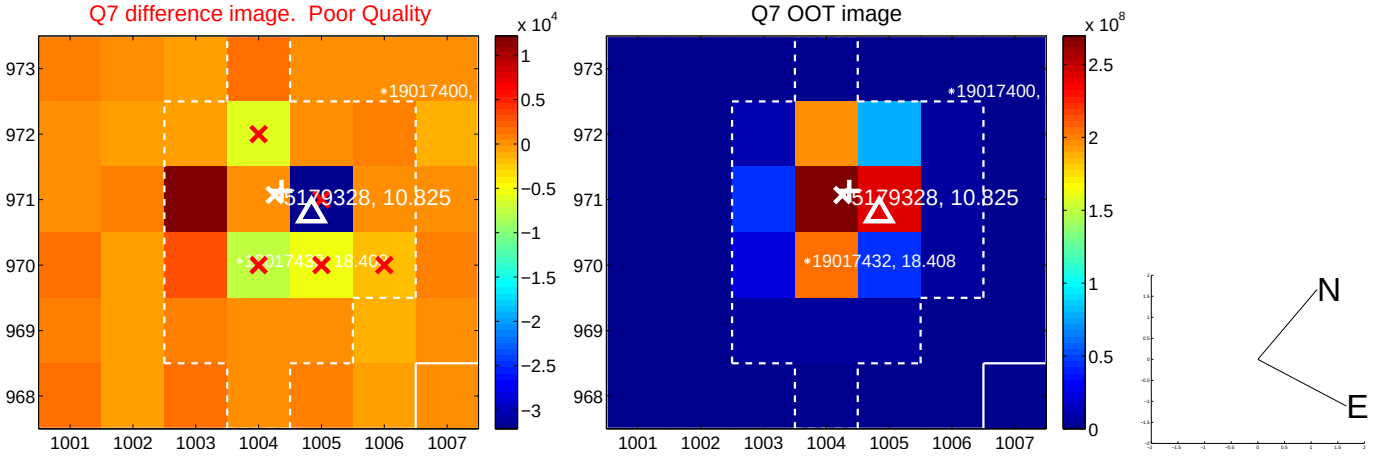


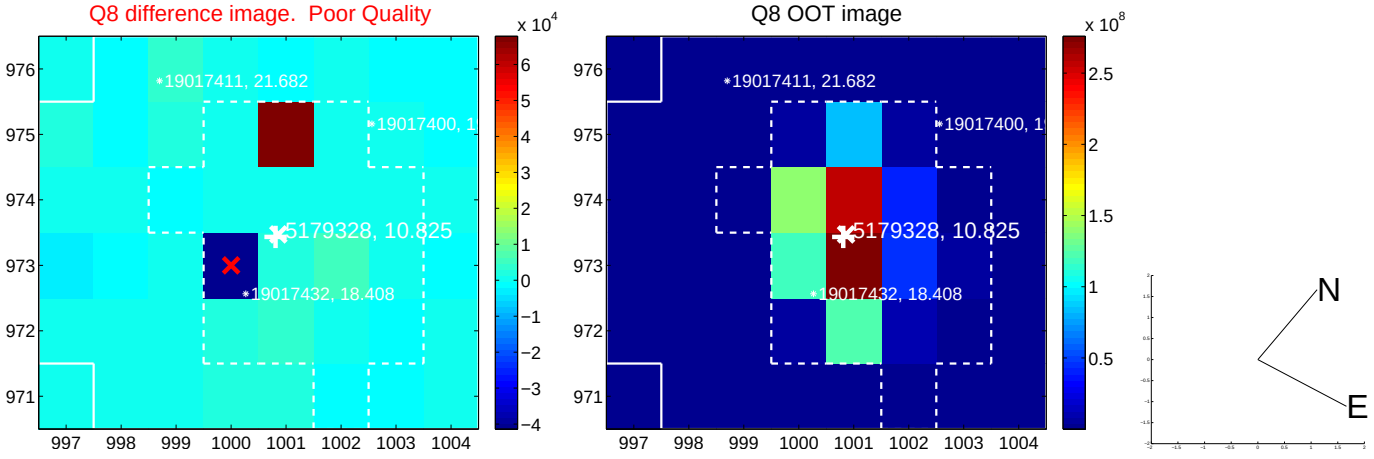


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

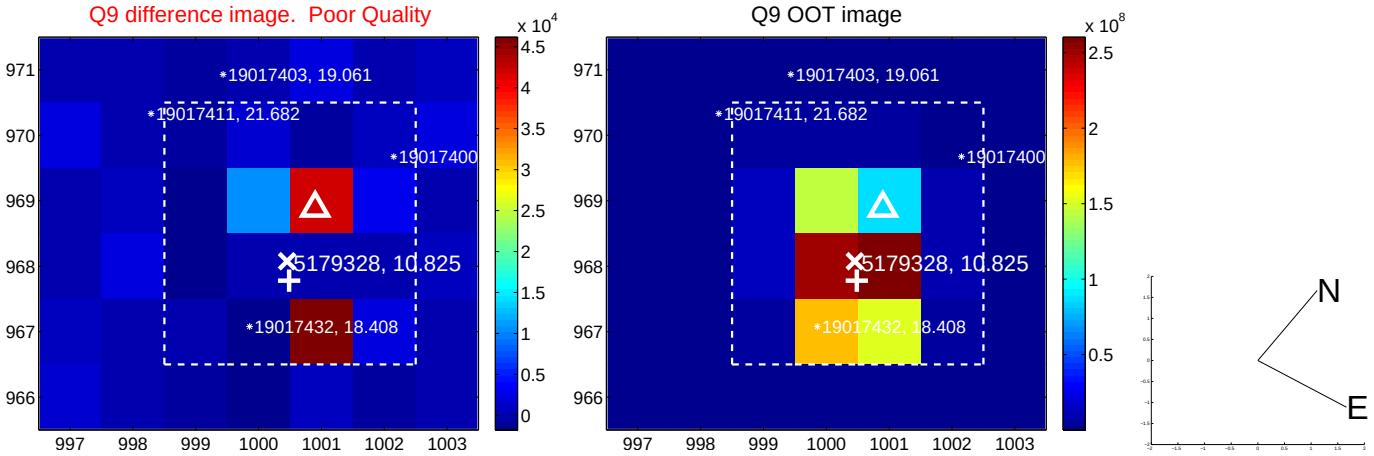


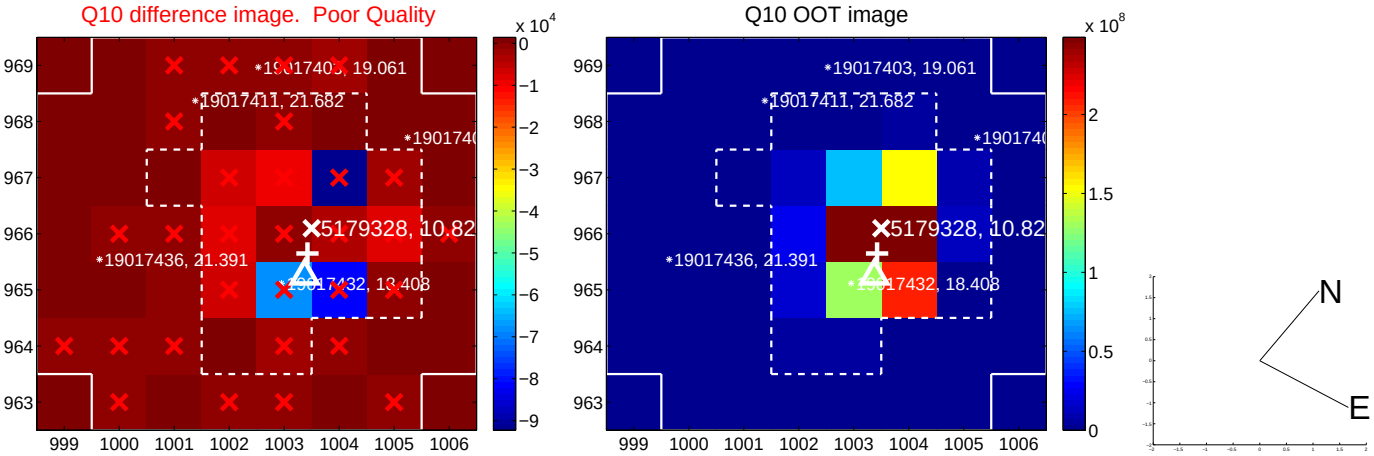


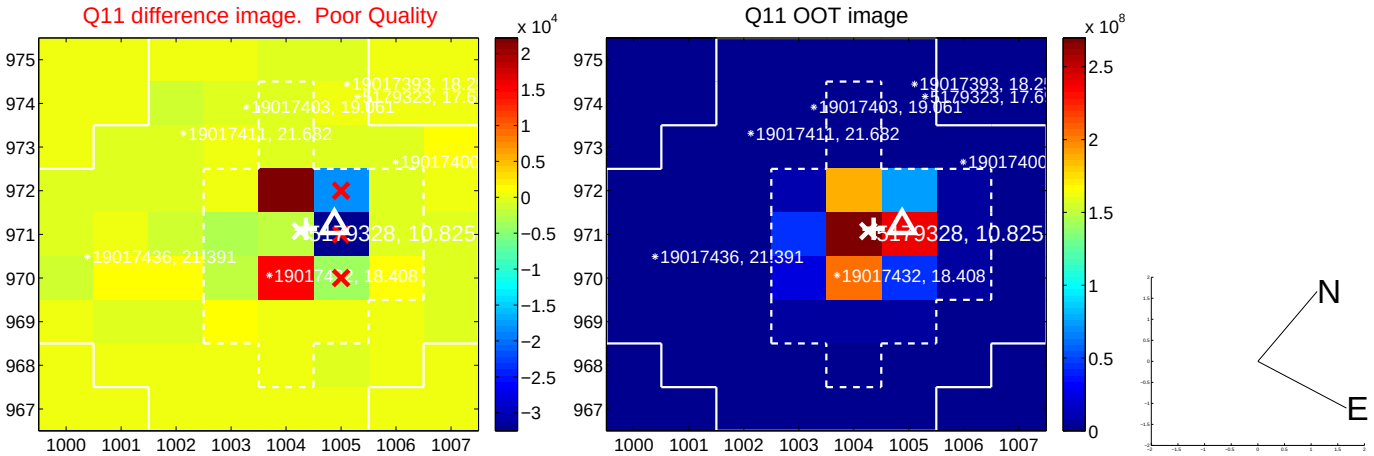


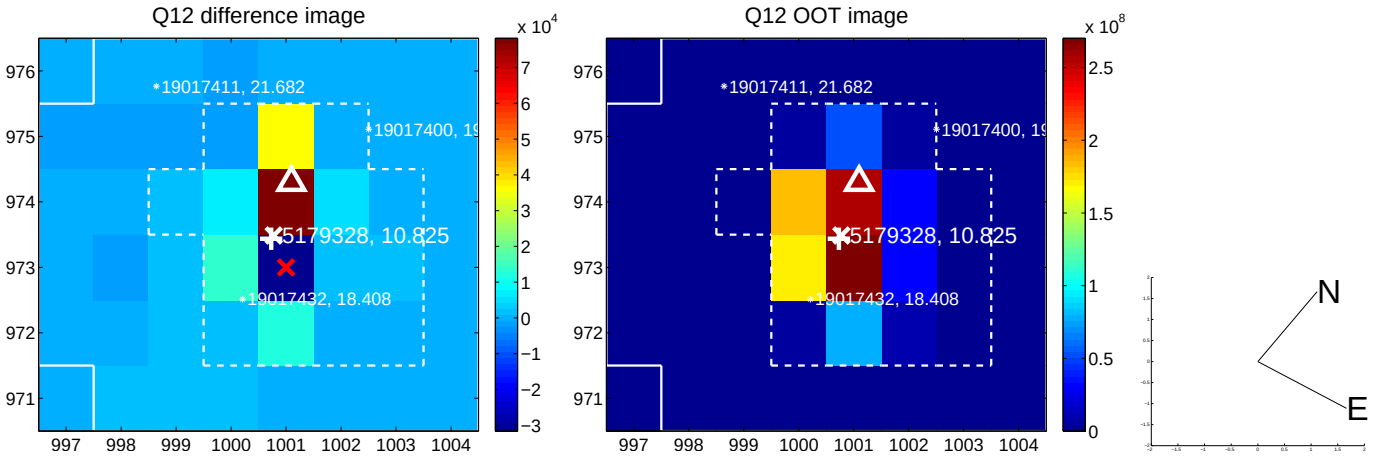


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

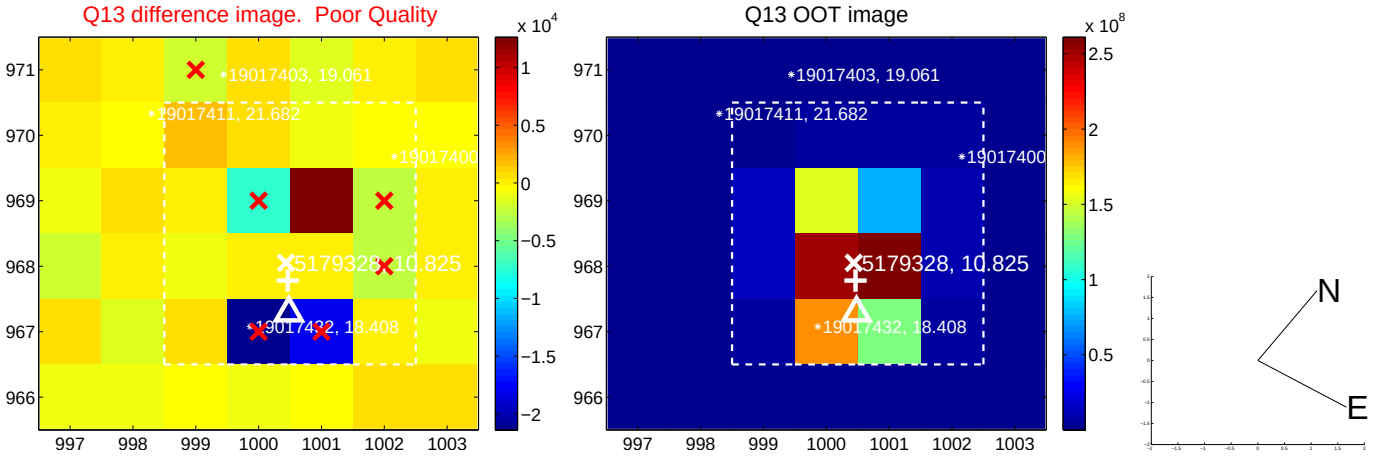


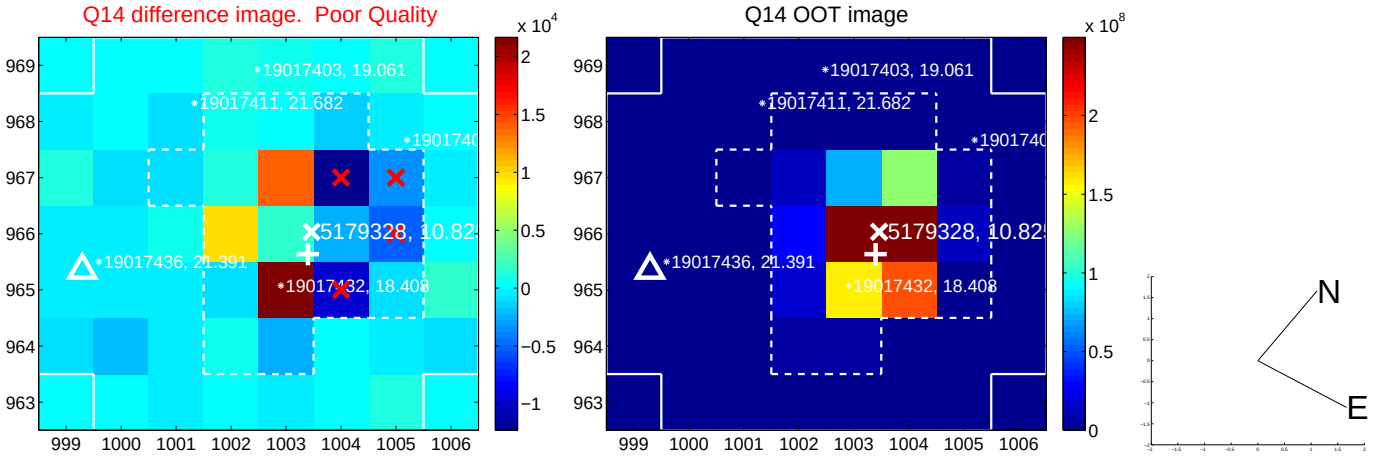


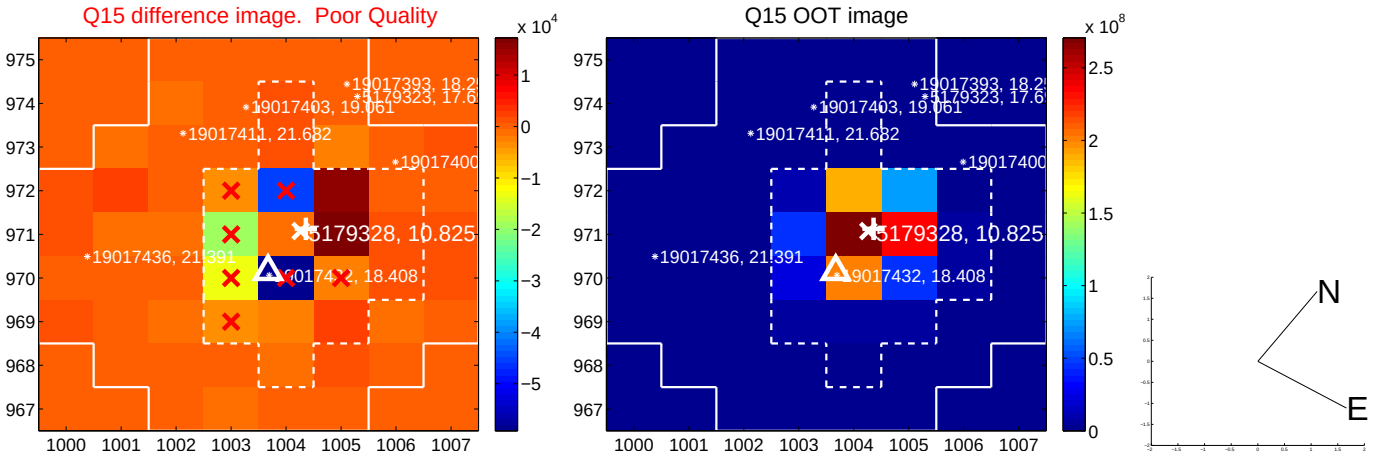


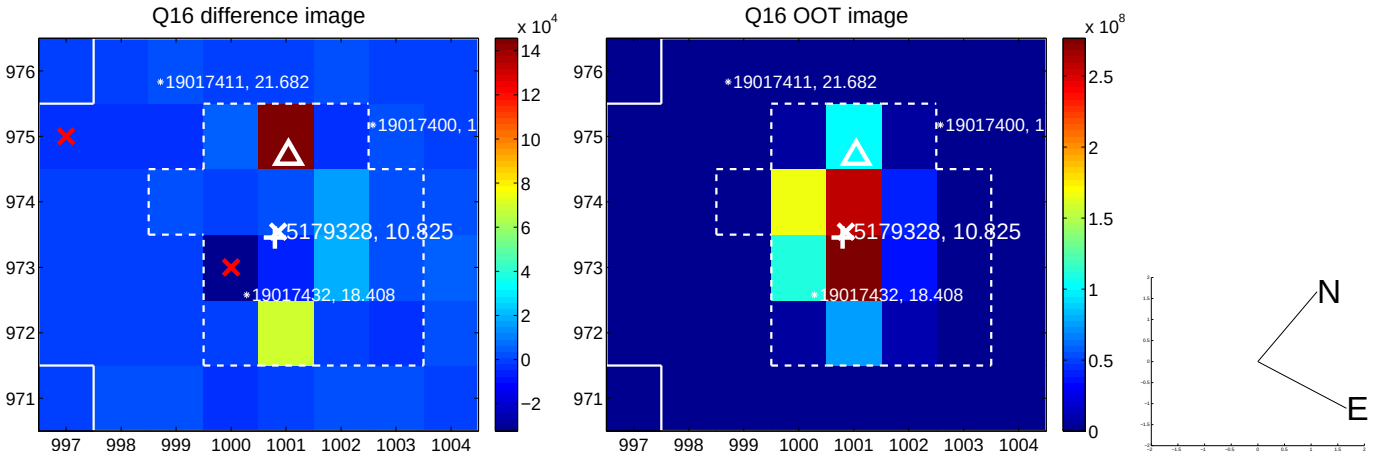


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.









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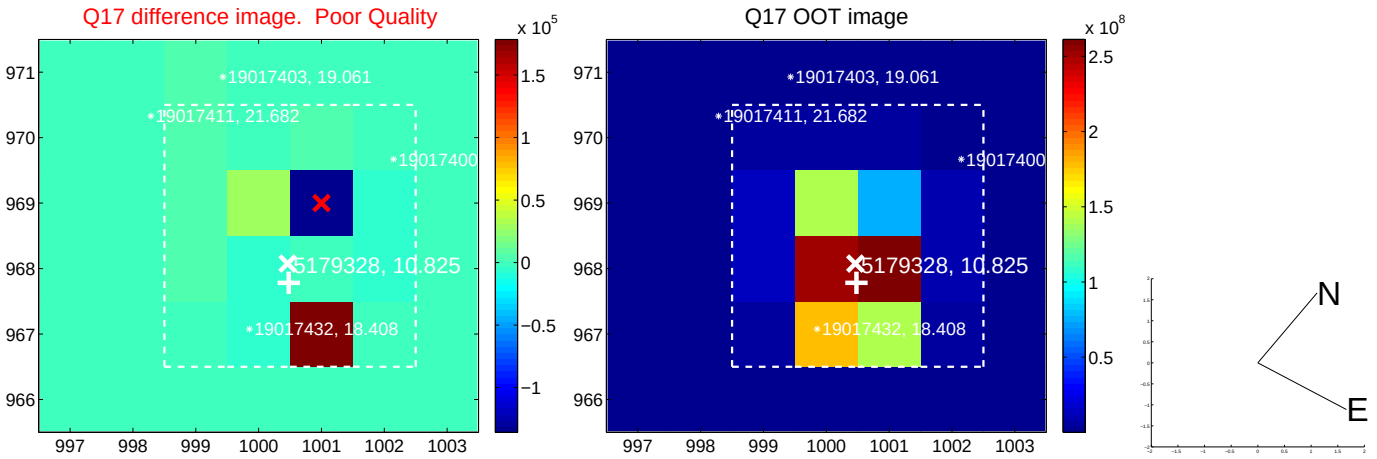
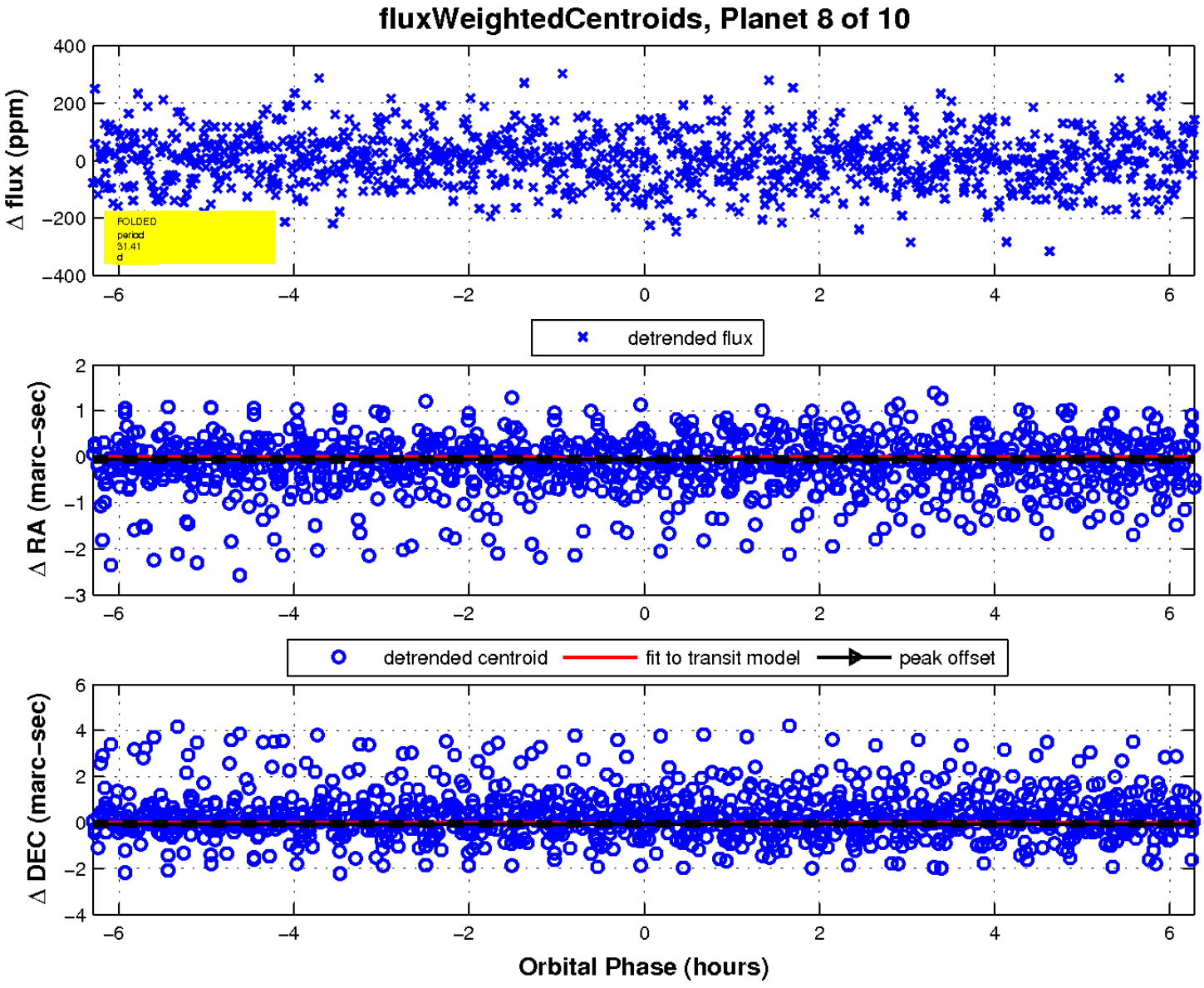
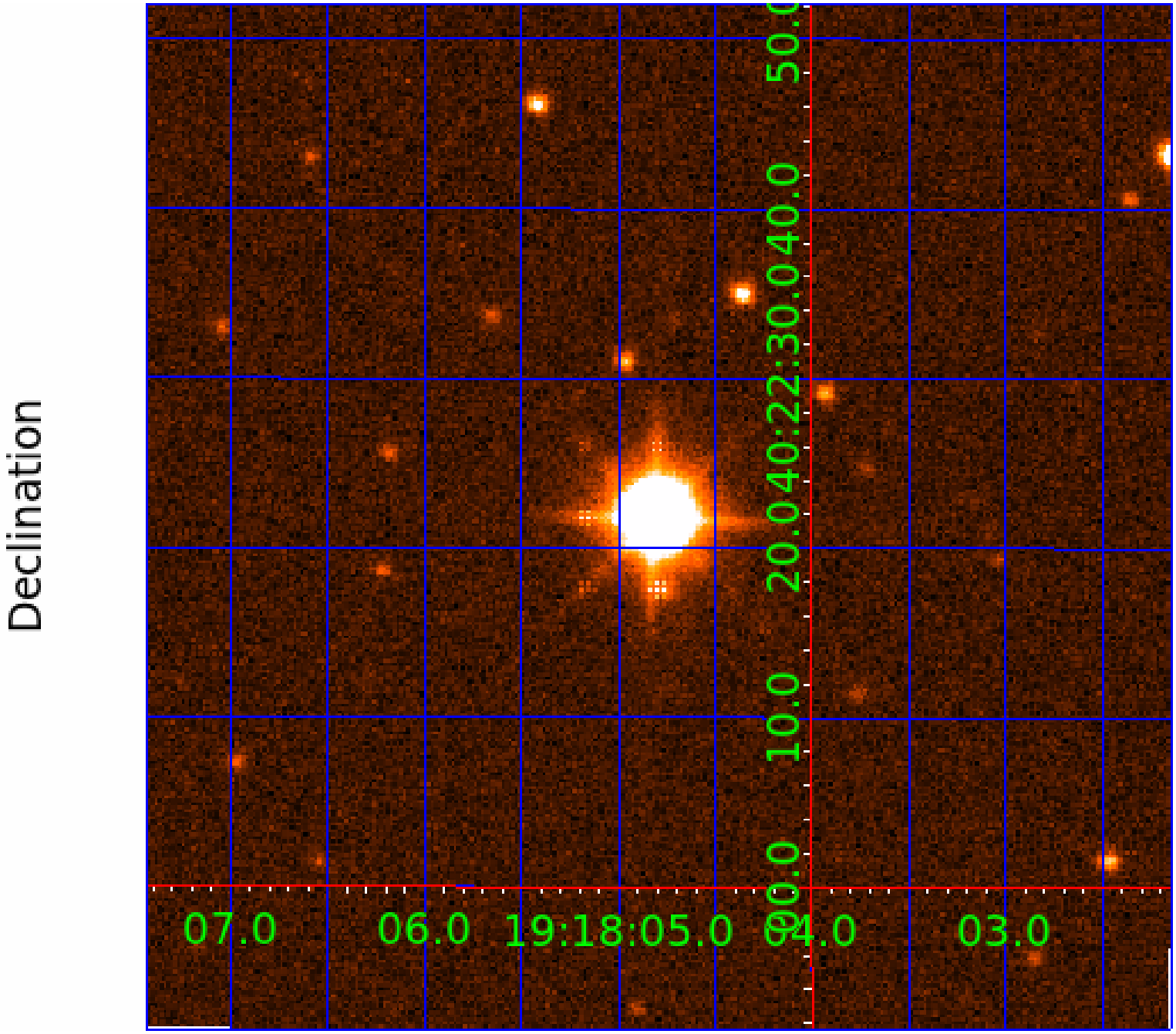




UKIRT Image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KIC 005179328

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_\star$ ($R_\odot$)	$T_\star$ (K)	R_p ($R_\oplus$)	S_p ($S_\oplus$)
005179328-01	OBS	No	0.670370	131.764741	8.2	4.033	8.9	6.8	1.82	6762	0.60	21602.52
005179328-02	OBS	No	108.777871	185.898559	134.5	11.798	8.4	7.9	1.82	6762	2.36	24.41
005179328-04	OBS	No	50.596736	179.377582	7.5	0.919	9.0	0.3	1.82	6762	0.58	67.73
005179328-05	OBS	No	321.707316	141.046541	229.4	5.303	8.6	8.1	1.82	6762	3.00	5.75
005179328-06	OBS	No	102.672857	201.159806	177.8	2.224	8.2	8.7	1.82	6762	2.73	26.36
005179328-07	OBS	No	44.423528	165.932506	153.8	1.359	9.2	8.0	1.82	6762	2.58	80.56
005179328-08	OBS	No	31.414157	133.679706	116.3	2.102	8.4	9.1	1.82	6762	2.27	127.87
005179328-09	OBS	No	77.609623	148.121983	124.0	4.261	8.7	7.2	1.82	6762	2.30	38.29
005179328-10	OBS	No	125.588996	139.259222	156.4	9.832	8.1	8.6	1.82	6762	2.43	20.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005179328-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
005179328-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_SATURATED
005179328-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_SATURATED
005179328-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

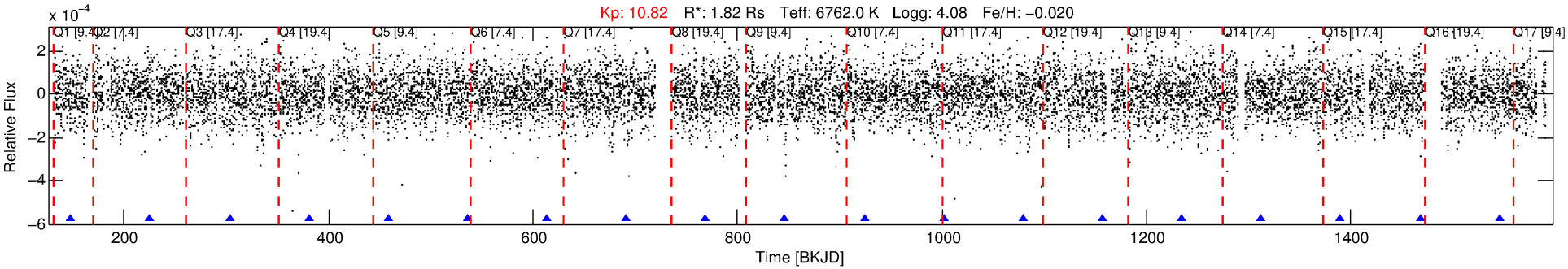
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

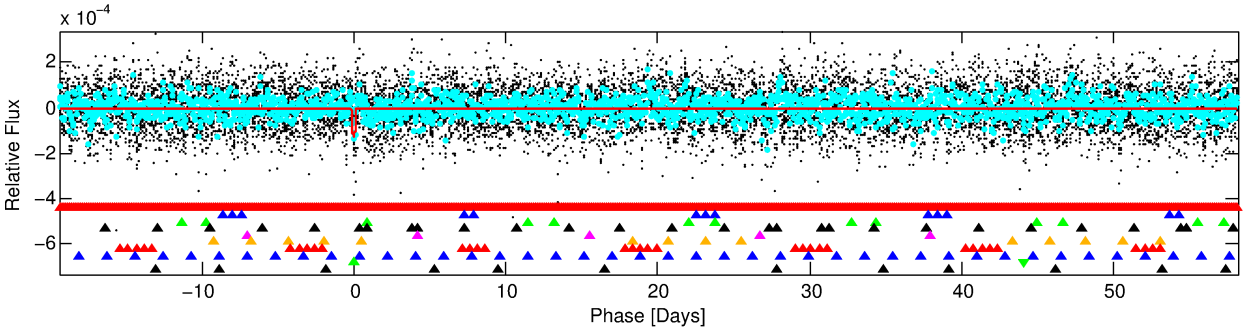
Ephemeris Match Information For 005179328-09

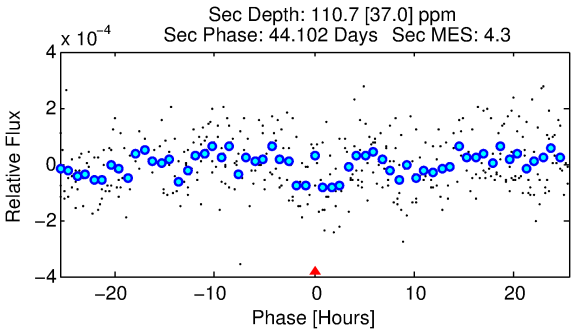
No Significant Match Found

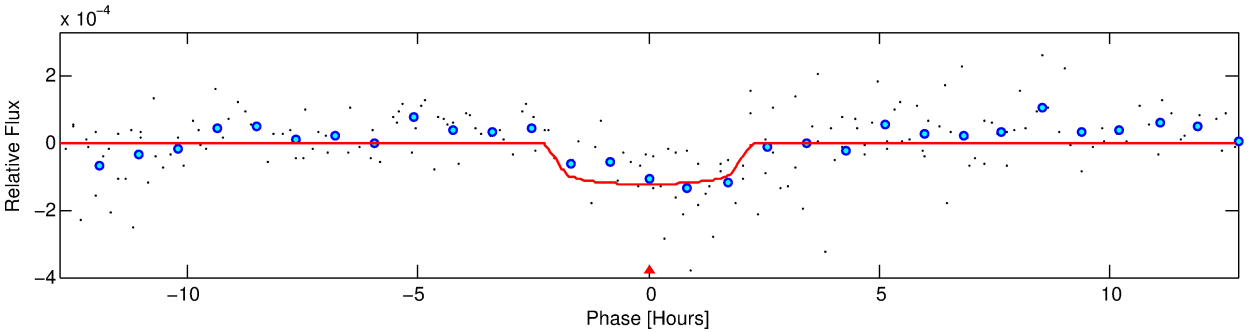
DV One-Page Summary

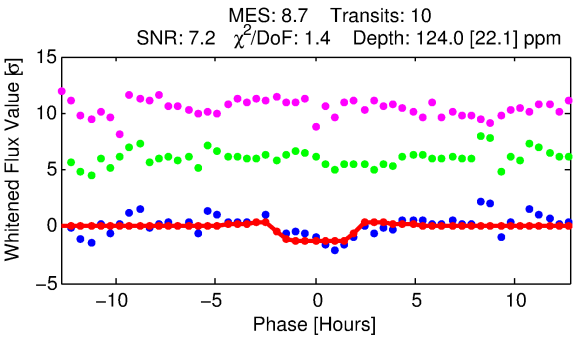
KIC: 5179328 Candidate: 9 of 10 Period: 77.610 d

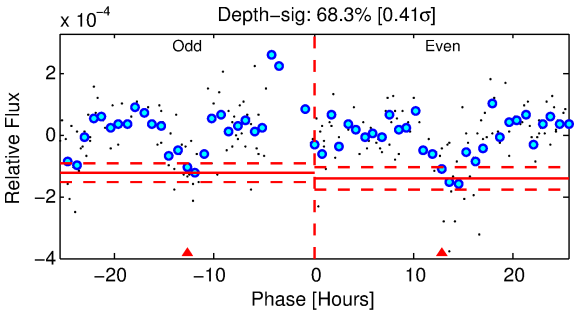


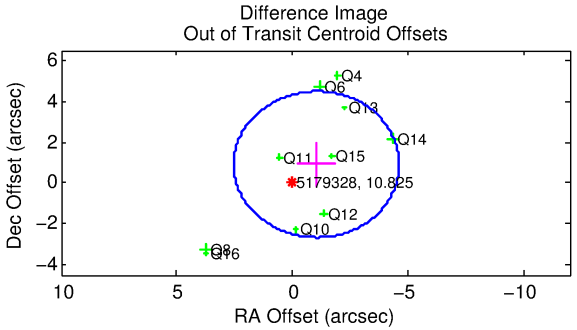












DV Fit Results:

Period = 77.60962 [0.00118] d
Epoch = 148.1220 [0.0119] BKJD
Rp/R* = 0.0116 [0.0070]
a/R* = 73.35 [253.20]
b = 0.86 [1.03]

Seff = 38.29 [9.84]
Teq = 634 [41] K
Rp = 2.30 [1.45] Re
a = 0.4021 [0.0669] AU

Ag = 1858.51 [2364.13] [0.79σ]
Teffp = 6439 [2008] K [2.89σ]

DV Diagnostic Results:

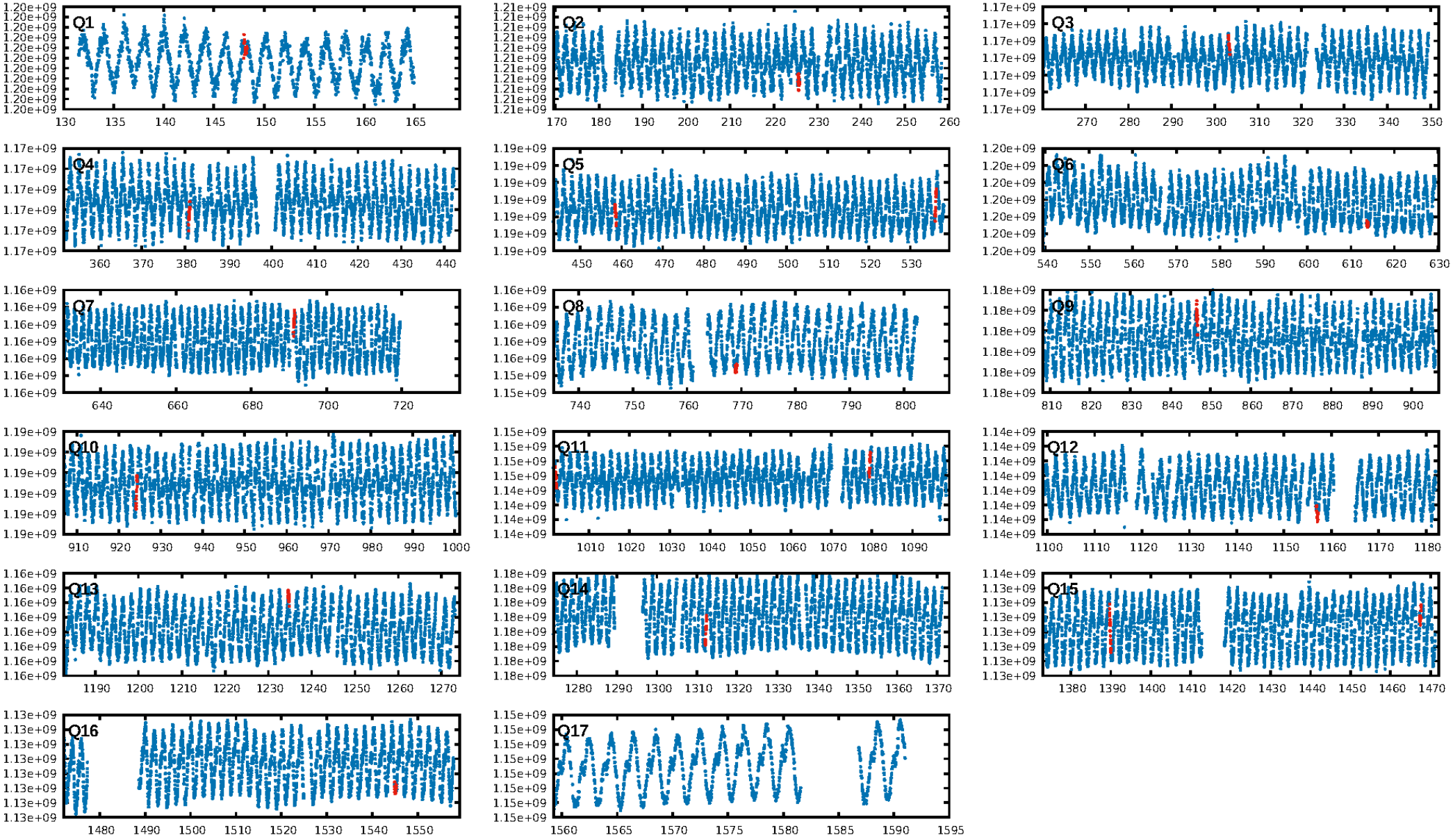
ShortPeriod−sig: 100.0% [148.72σ]
LongPeriod−sig: 100.0% [125.15σ]
ModelChiSquare2−sig: 5.6%
ModelChiSquareGof−sig: 100.0%
Bootstrap−pfa: N/A
RollingBand−fgt: 1.00 [9/9]
GhostDiagnostic−chr: 0.9704

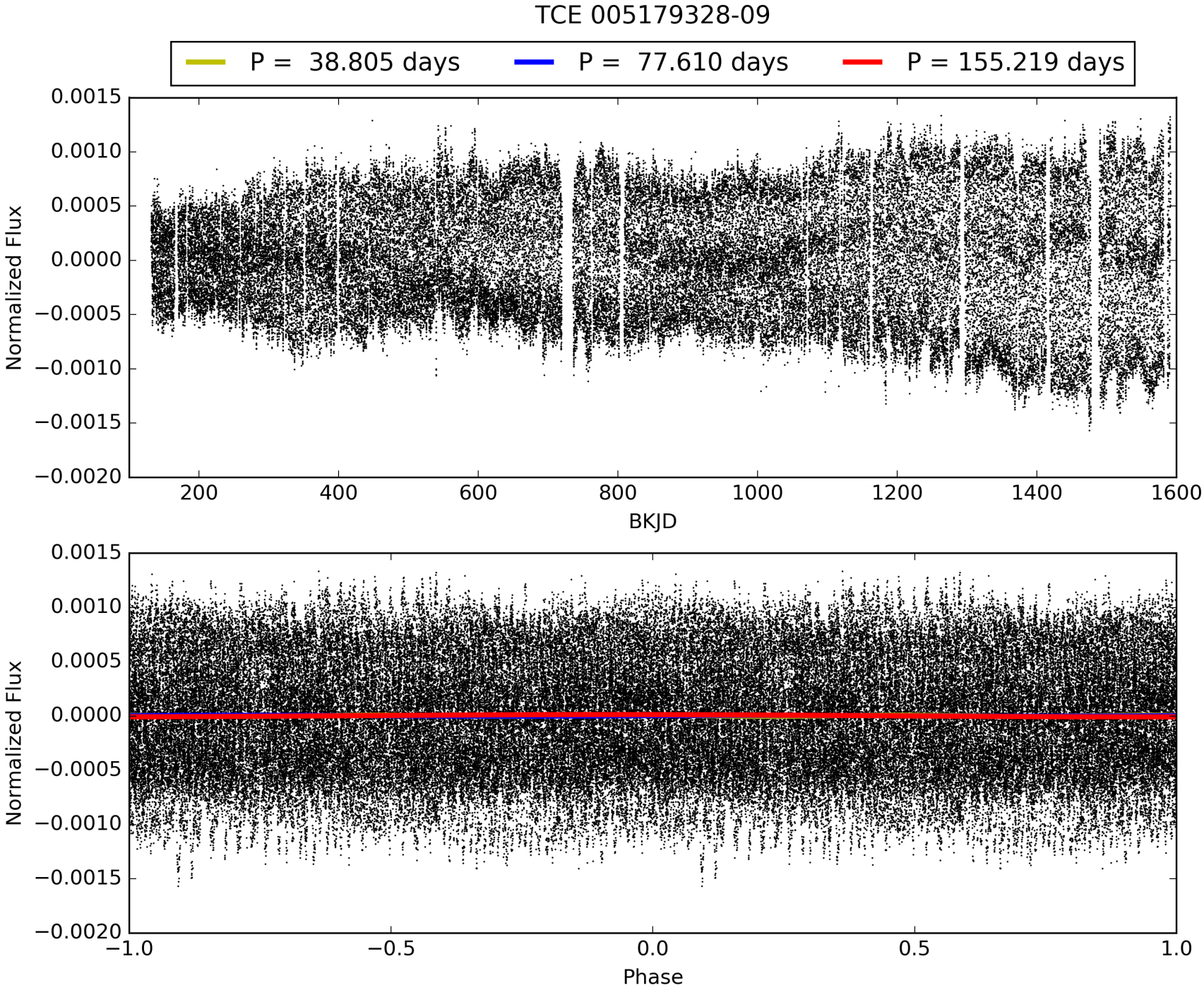
Centroid−sig: 48.8%
Centroid−so: 0.157 arcsec [0.19σ]
OotOffset−rm: 1.381 arcsec [1.16σ]
KicOffset−rm: 0.795 arcsec [0.74σ]
OotOffset−st: 3/2/4/1 [10]
KicOffset−st: 3/2/4/1 [10]
DiffImageQuality−fgm: 0.30 [3/10]
DiffImageOverlap−fno: 0.00 [0/14]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 −− Date Generated: 01−Feb−2016 20:02:58 Z

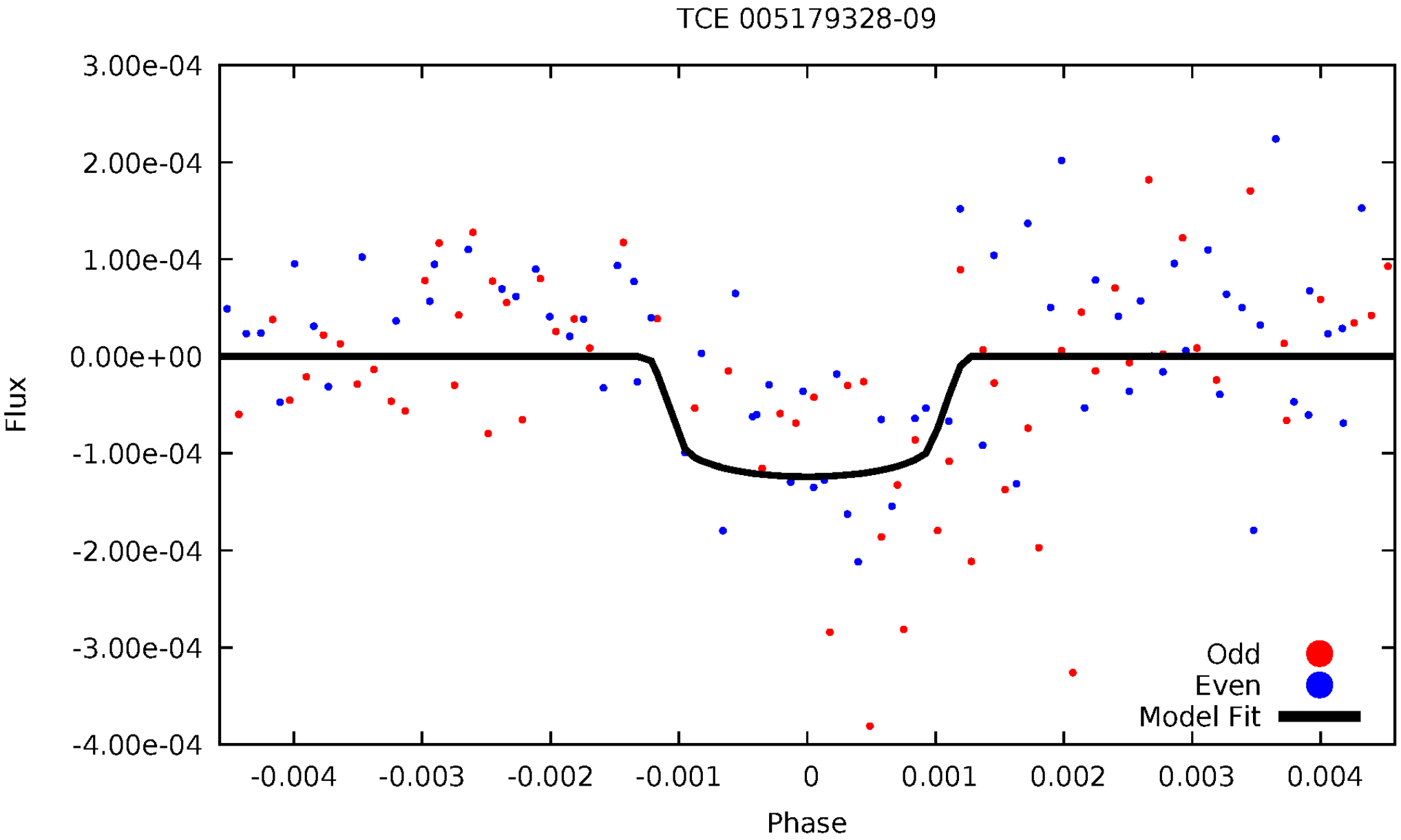
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

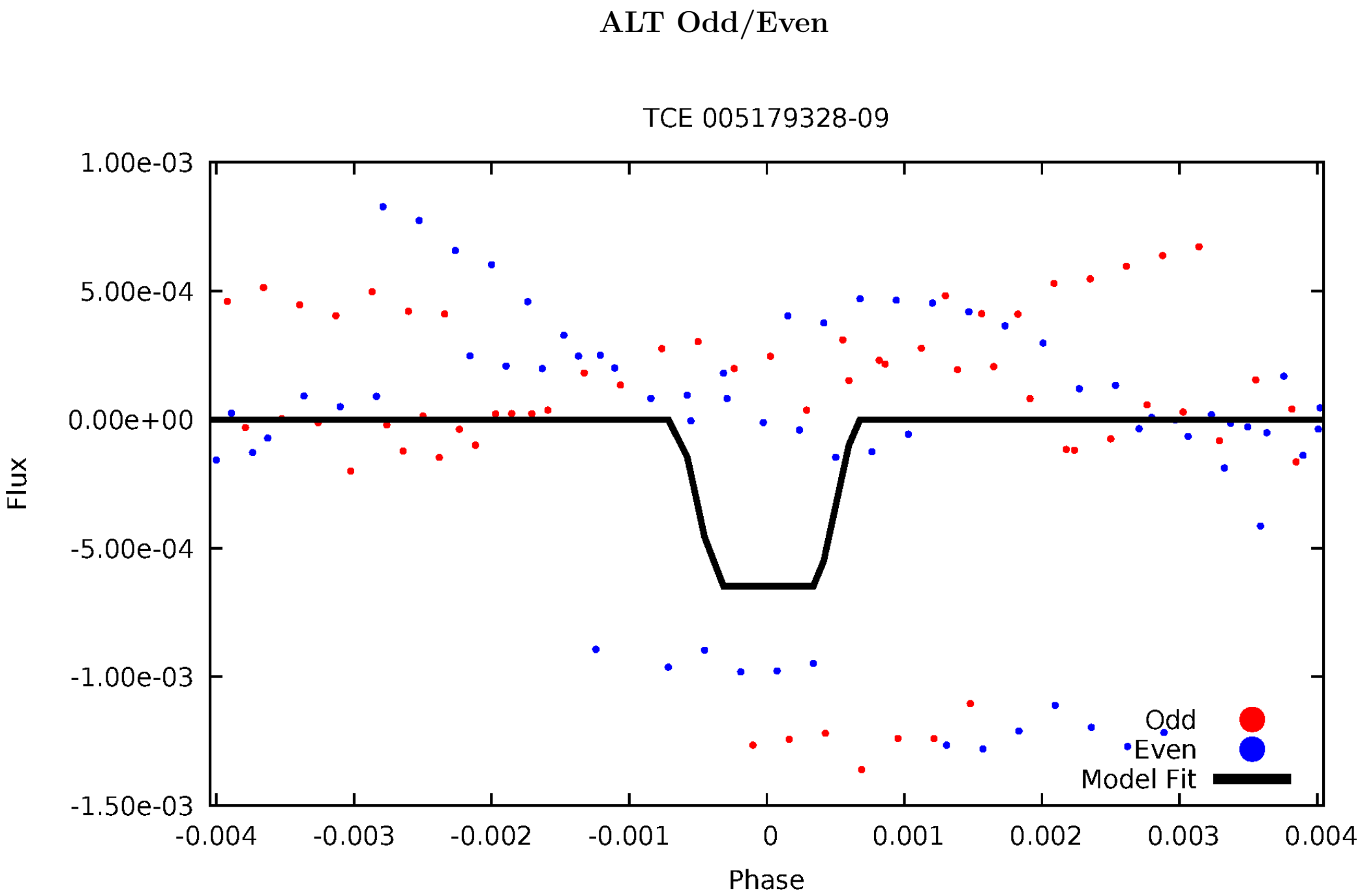
TCE 005179328-09, PDC Light Curves



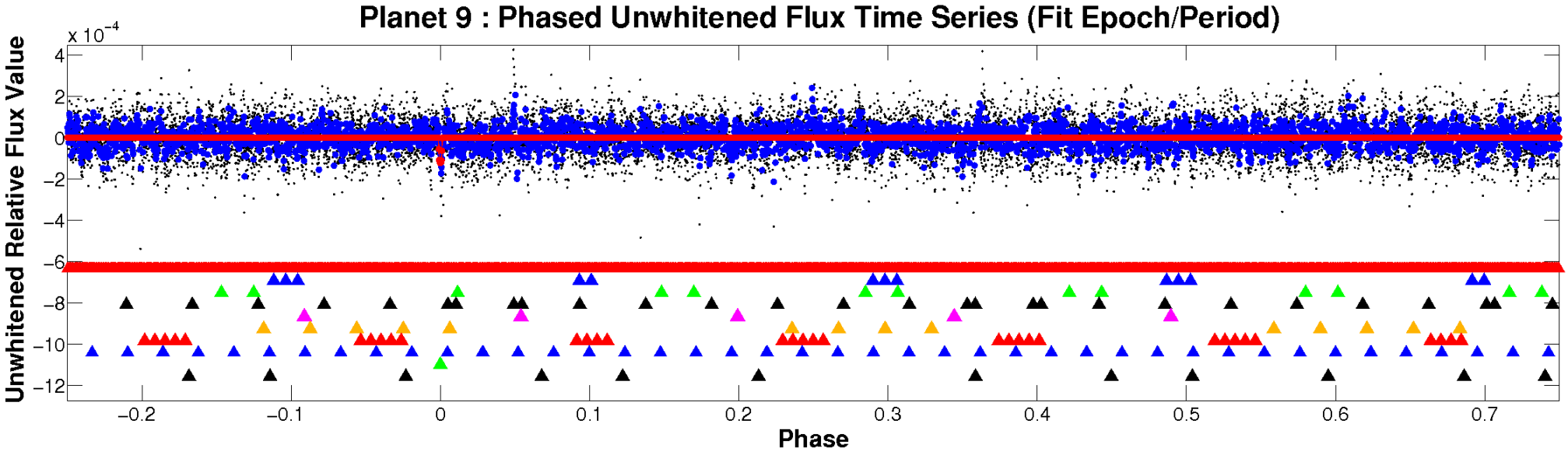

TCE 005179328-09
P = 38.805 days
P = 77.610 days
P = 155.219 days
Normalized Flux
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015
−0.0020
200
400
600
800
1000
1200
1400
1600
BKJD
Normalized Flux
−1.0
−0.5
0.0
0.5
1.0
Phase

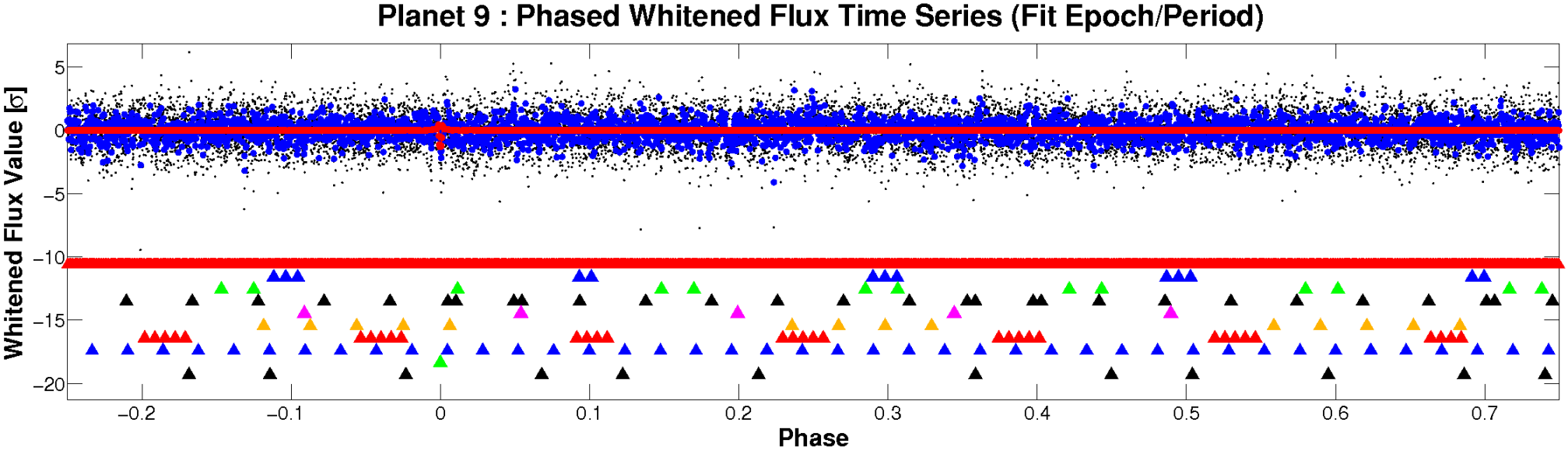
DV Odd/Even


TCE 005179328-09
3.00e-04
2.00e-04
1.00e-04
0.00e+00
-1.00e-04
-2.00e-04
-3.00e-04
-4.00e-04
Flux
-0.004
-0.003
-0.002
-0.001
0
0.001
0.002
0.003
0.004
Phase
Odd
Even
Model Fit


ALT Odd/Even
TCE 005179328-09
1.00e-03
5.00e-04
0.00e+00
-5.00e-04
-1.00e-03
-1.50e-03
Flux
-0.004
-0.003
-0.002
-0.001
0
0.001
0.002
0.003
0.004
Phase
Odd
Even
Model Fit

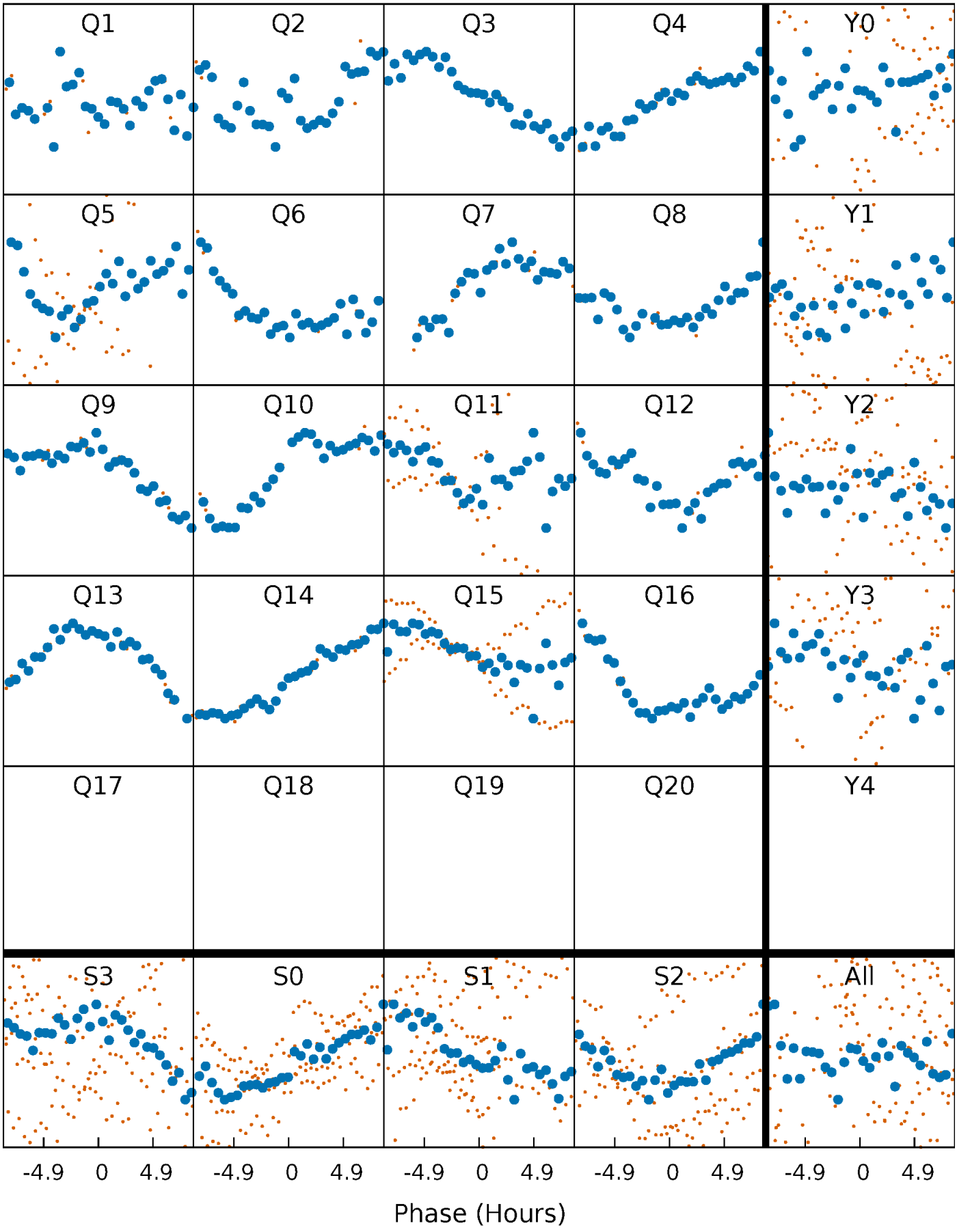
Non-Whitened Vs. Whitened Light Curve





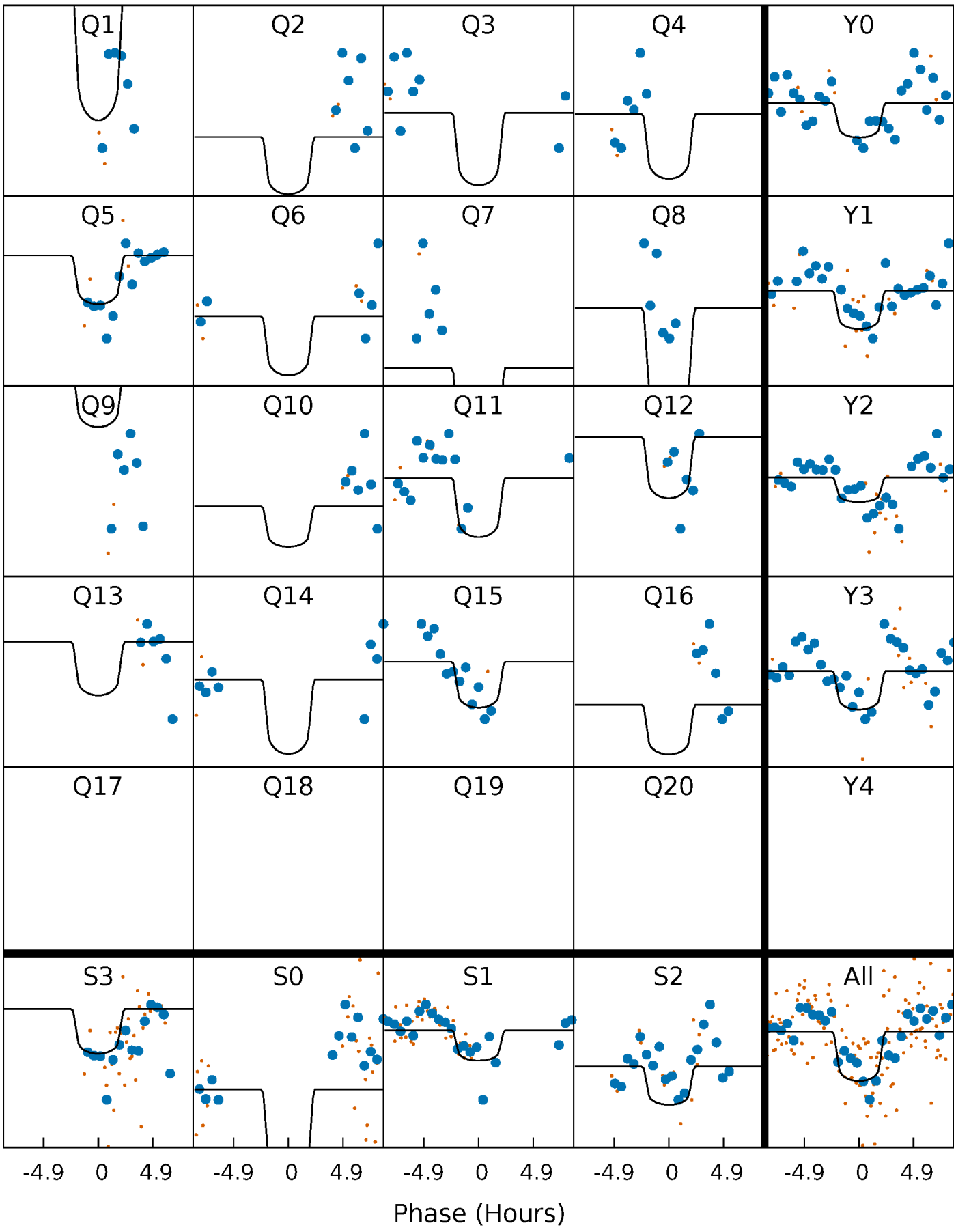
PDC Quarter-Phased Transit Curves

TCE 005179328-09 P= 77.609623 Days T_0=148.121983 (BKJD)



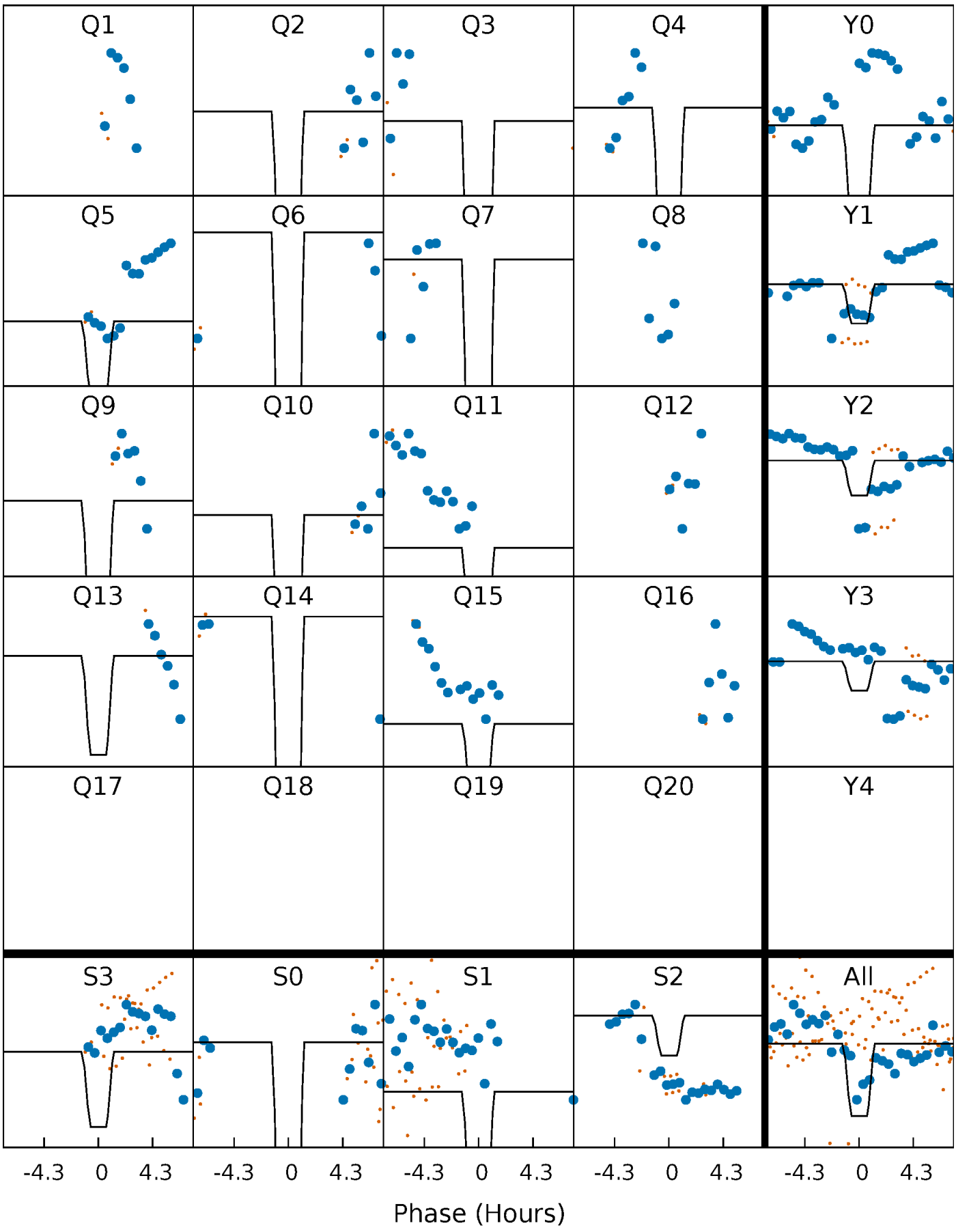
DV Quarter-Phased Transit Curves

TCE 005179328-09 P= 77.609623 Days T_0=148.121983 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

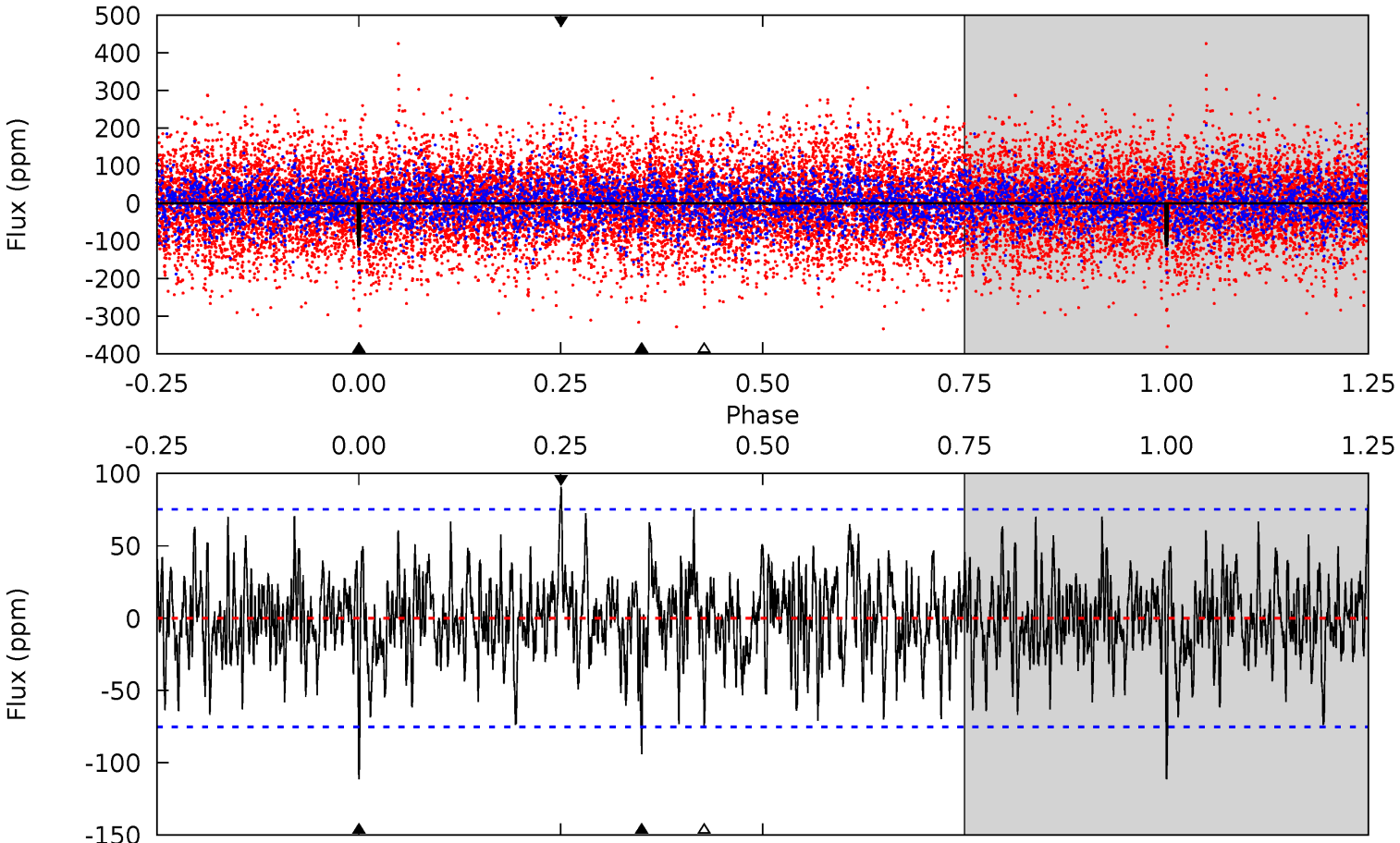
TCE 005179328-09 P= 77.609564 Days T_0=148.114107 (BKJD)

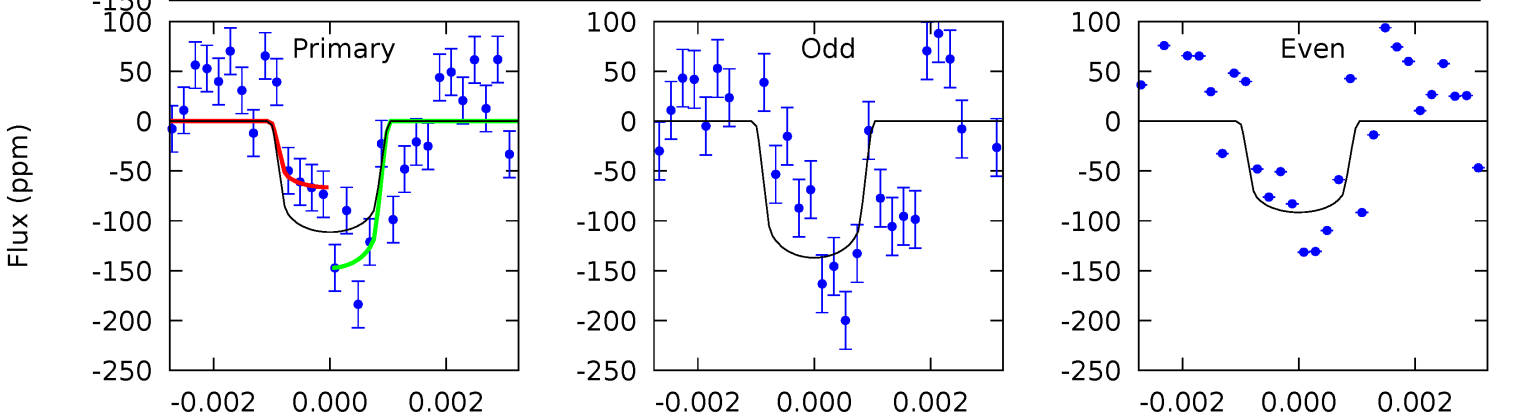


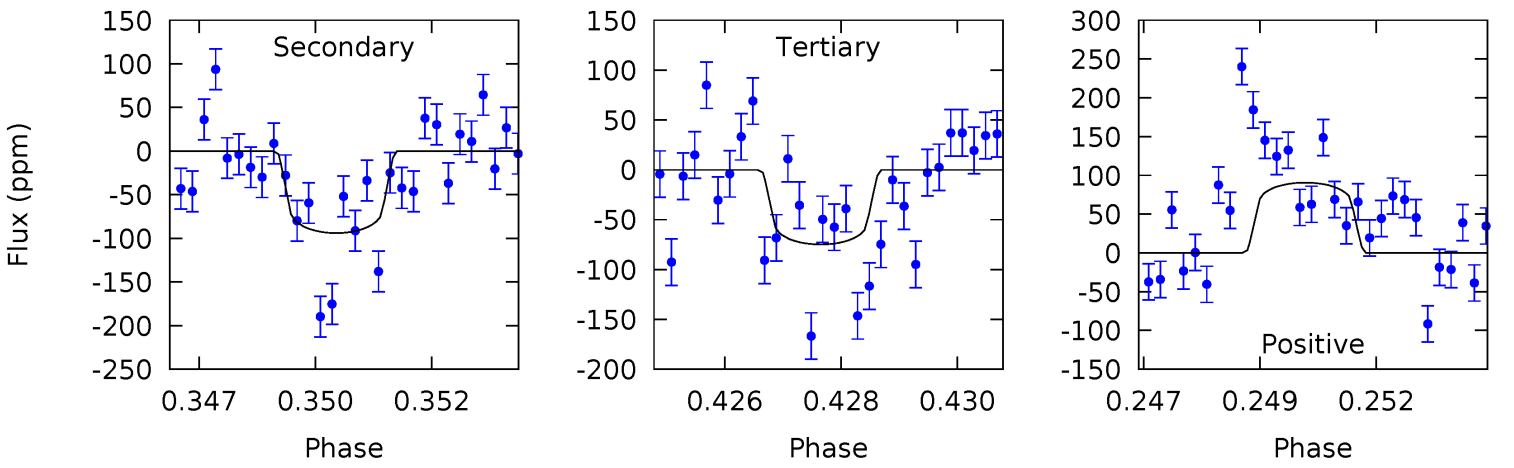
DV Model-Shift Uniqueness Test

005179328-09, P = 77.609623 Days, E = 70.512360 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.83	6.61	5.27	6.37	5.29	3.03	1.76	2.57	1.46	1.34	0.24	1.59	1.21	0.45	2.78



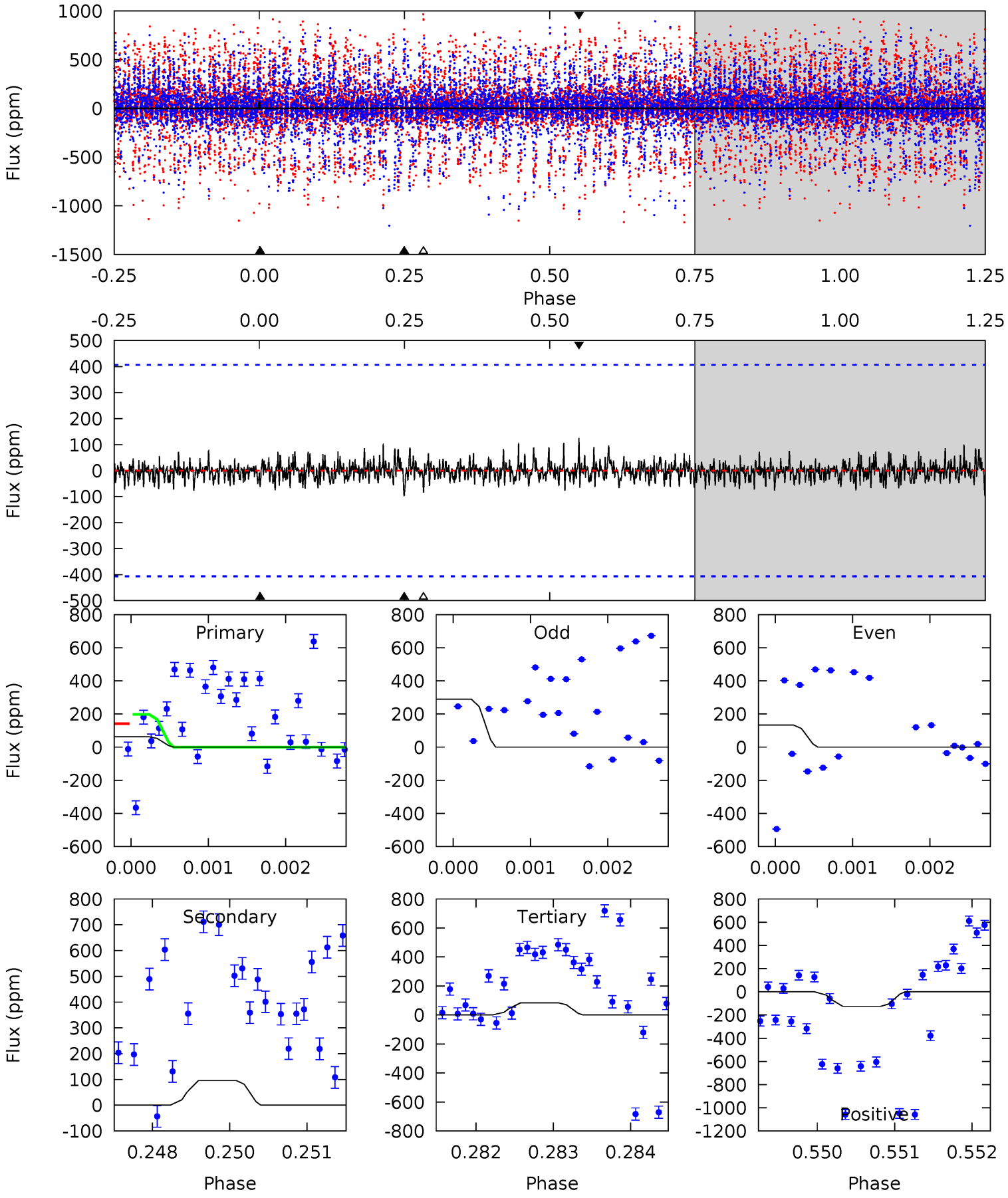




Alt Model-Shift Uniqueness Test

005179328-09, P = 77.609564 Days, E = 70.504543 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.83	1.27	1.11	1.66	5.41	3.23	0.34	-0.28	-0.83	0.16	-0.39	1.03	-2.84	0.57	0.35



Stellar Parameters For KIC 005179328

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6762^{+81}_{-81}	$4.077^{+0.143}_{-0.117}$	$-0.020^{+0.150}_{-0.150}$	$1.818^{+0.307}_{-0.341}$	$1.444^{+0.115}_{-0.115}$	$0.338^{+0.242}_{-0.122}$
	+1%/-1%	+4%/-3%	+750%/-750%	+17%/-19%	+8%/-8%	+72%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005179328-09 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-94±14	$2.31^{+1.40}_{-1.22}$	888^{+40}_{-47}	6208^{+3346}_{-1296}	1566^{+5408}_{-982}
Alt.	-96±75	$5.09^{+1.48}_{-1.37}$	885^{+41}_{-45}	4337^{+800}_{-1185}	314^{+435}_{-272}

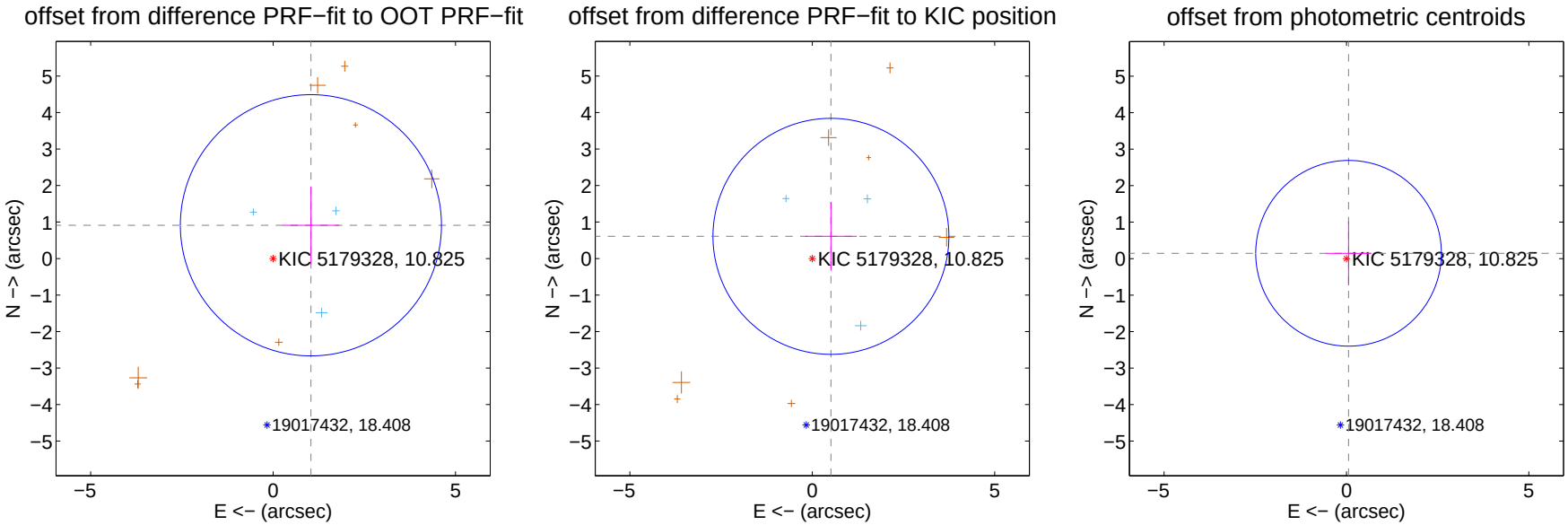
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

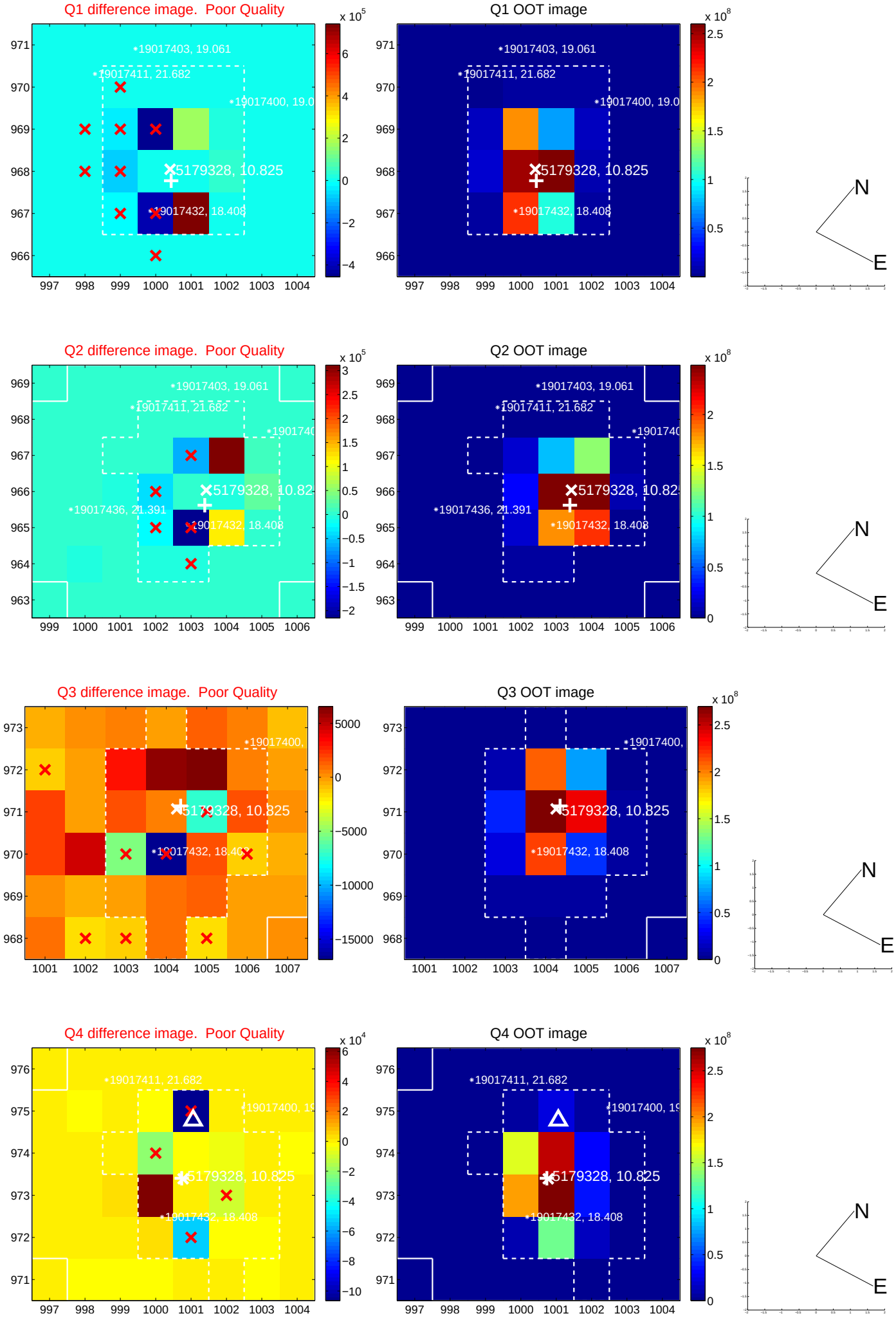
Supplemental centroid analysis for 005179328-09. Kepler magnitude: 10.82. Transit SNR 7.24
There are 3 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.41 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.381 ± 1.193	1.16	-1.037 ± 0.774	0.912 ± 1.064
PRF-fit source offset from KIC position	0.795 ± 1.078	0.74	-0.511 ± 0.709	0.608 ± 0.945
photometric centroid source offset	0.16 ± 0.85	0.19	-0.06 ± 0.62	0.15 ± 0.88

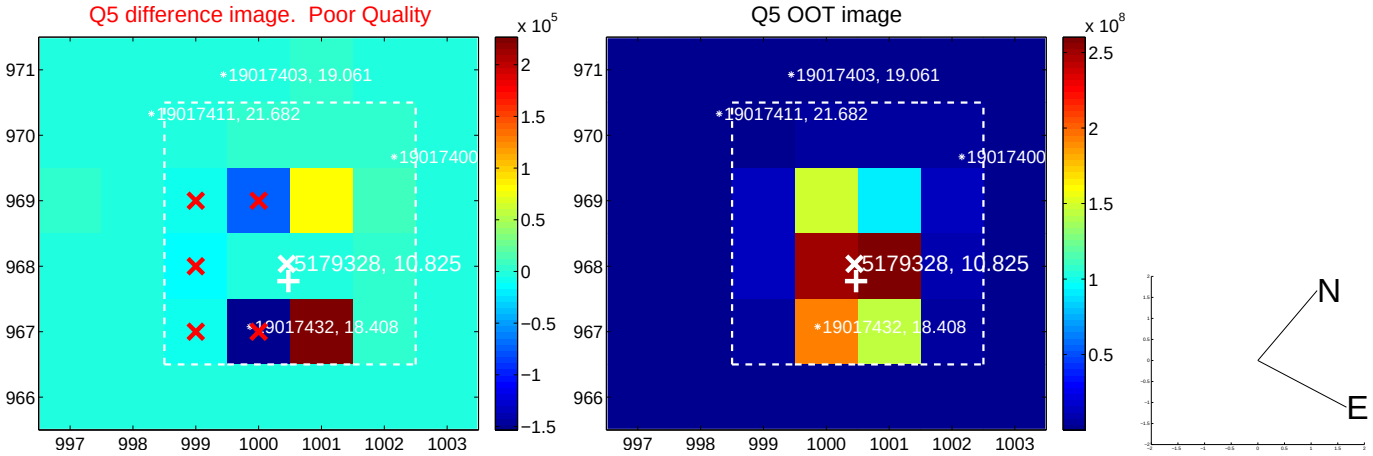


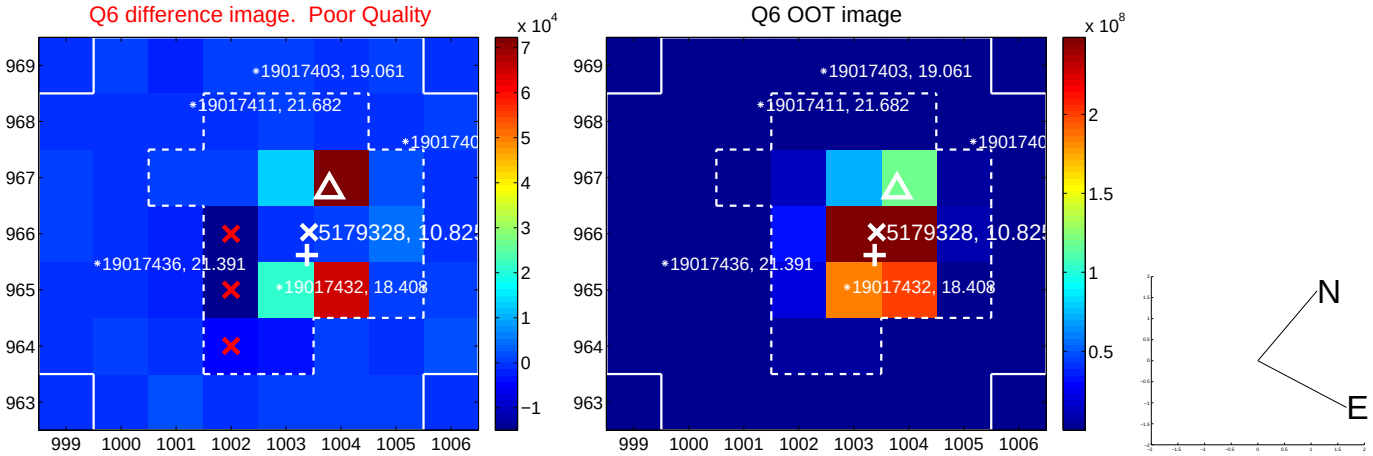
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs $> 15,000,000$ are from the UKIRT catalog.

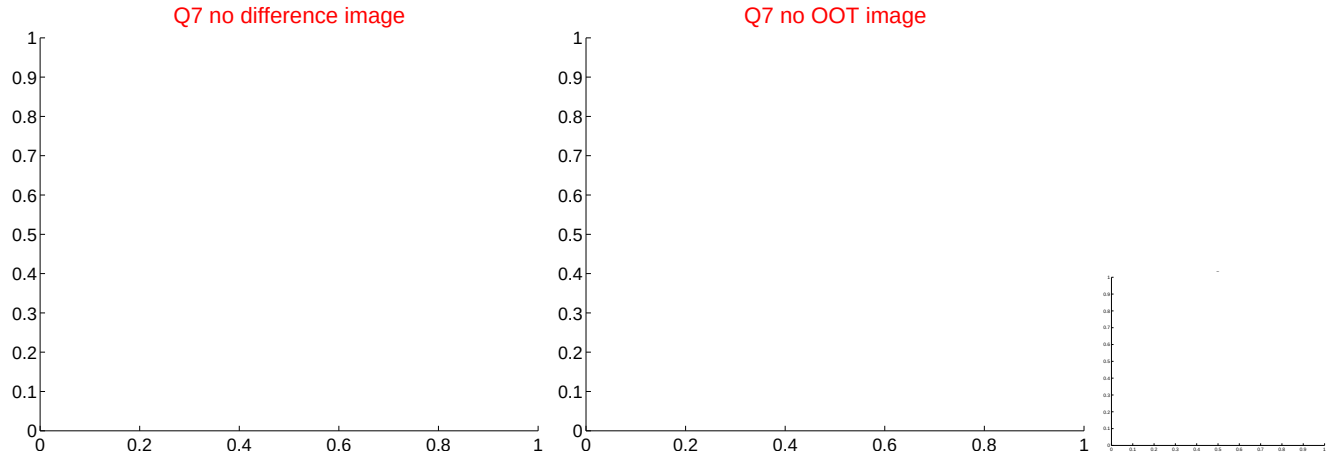
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

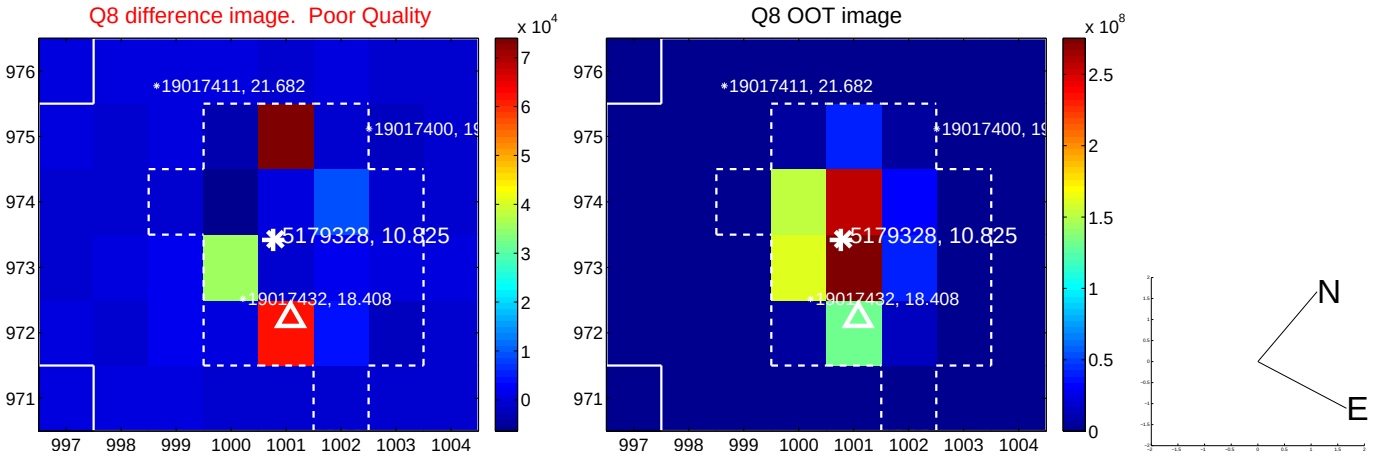


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

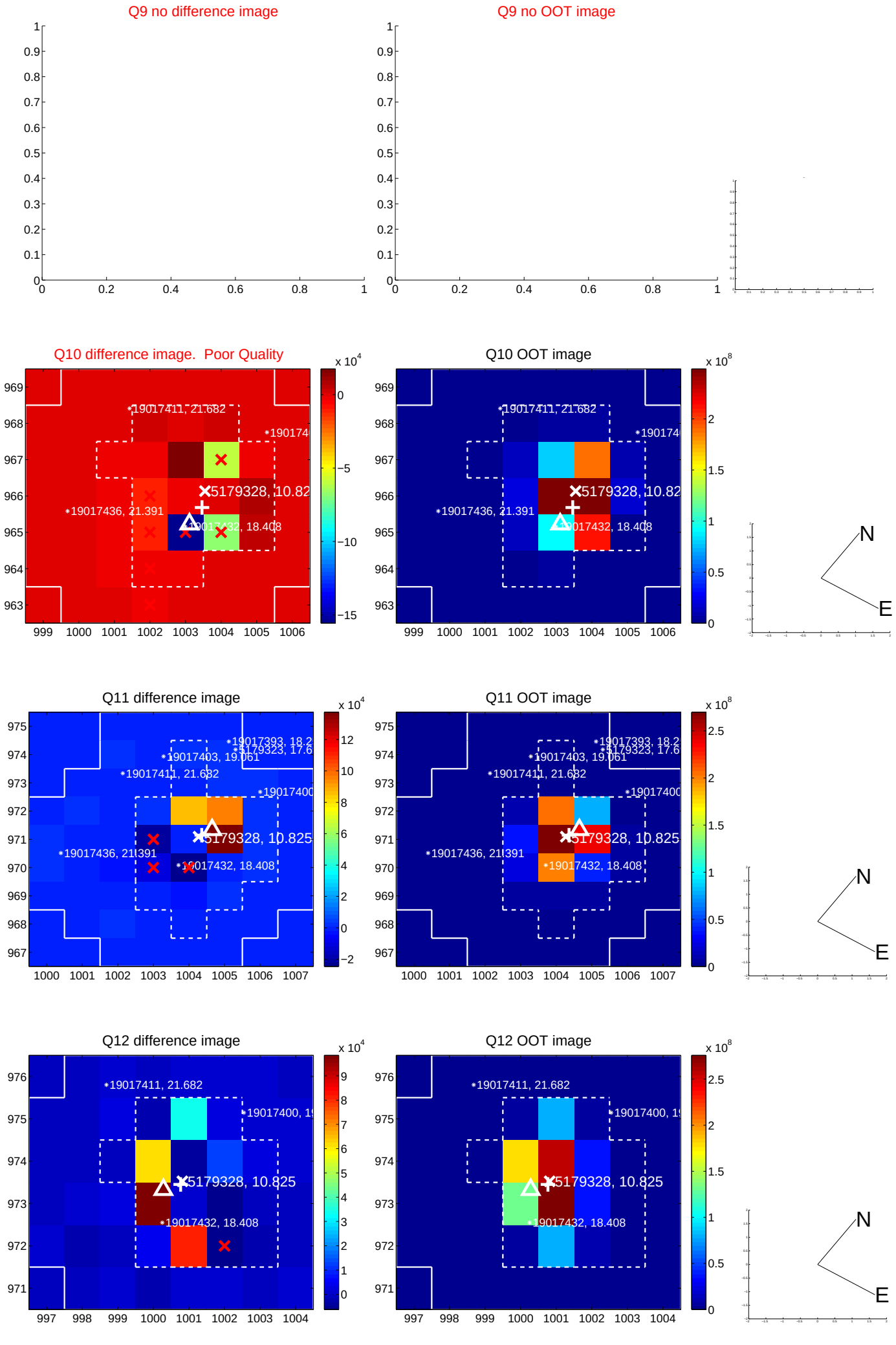




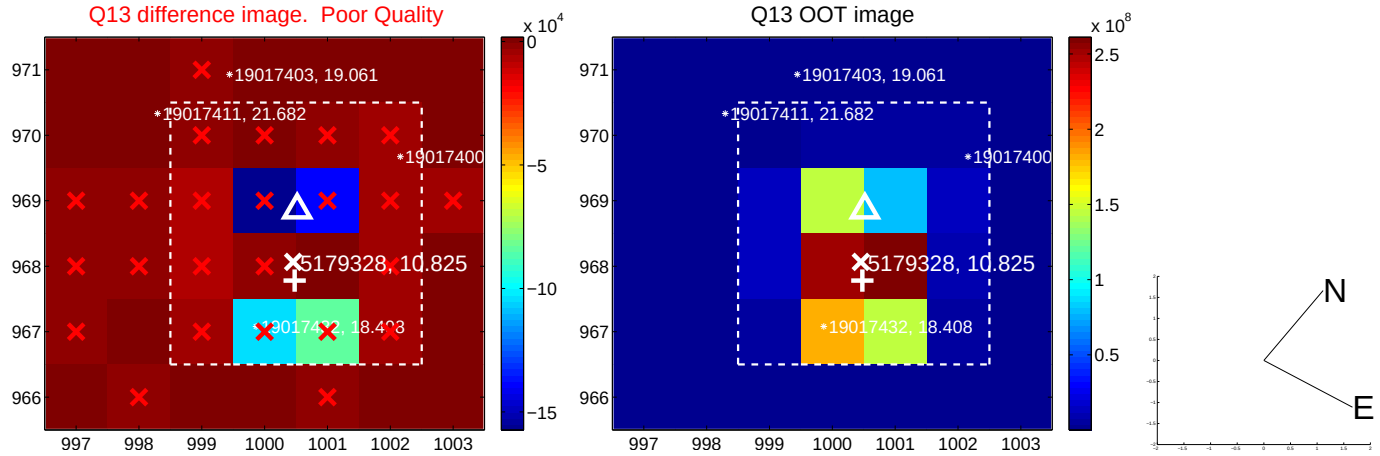


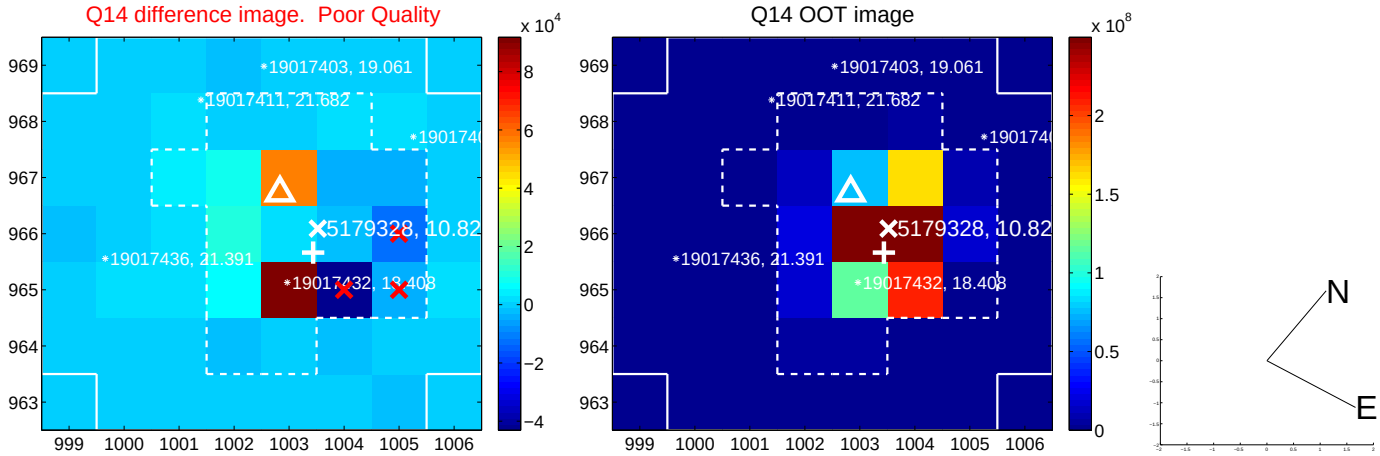


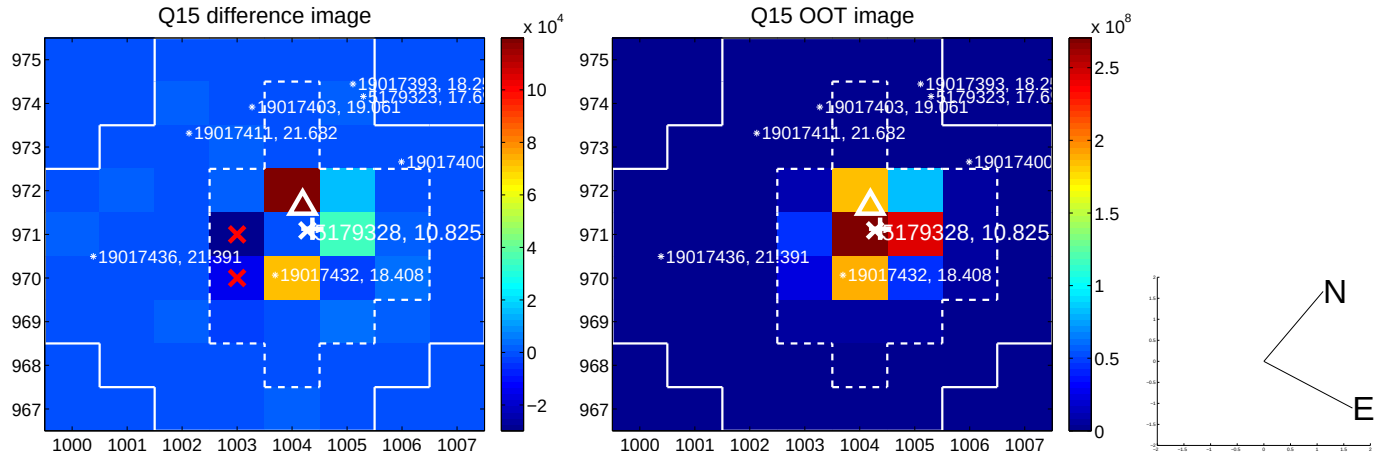
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

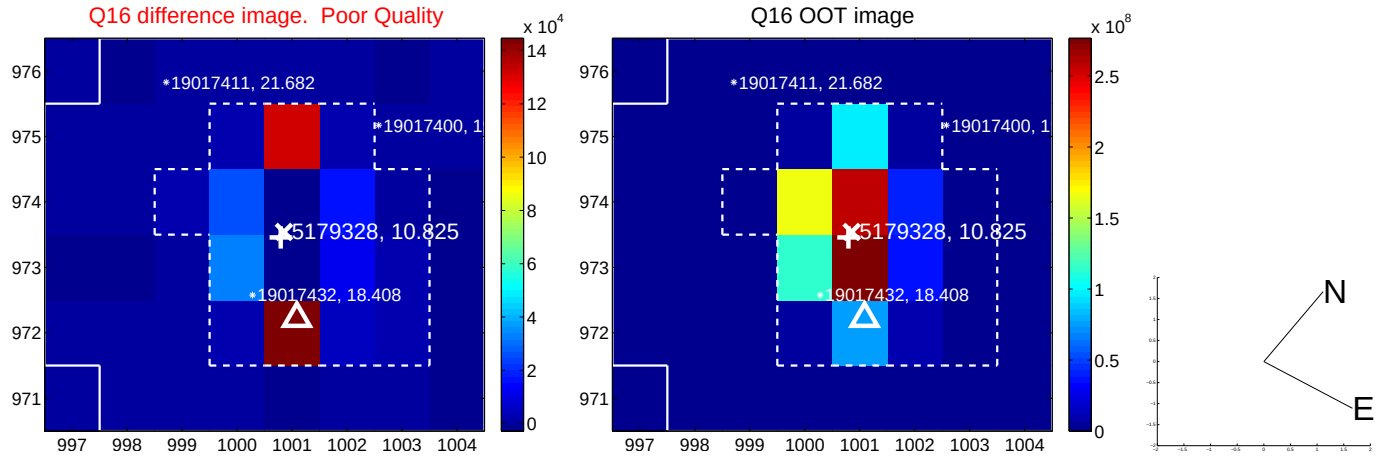


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

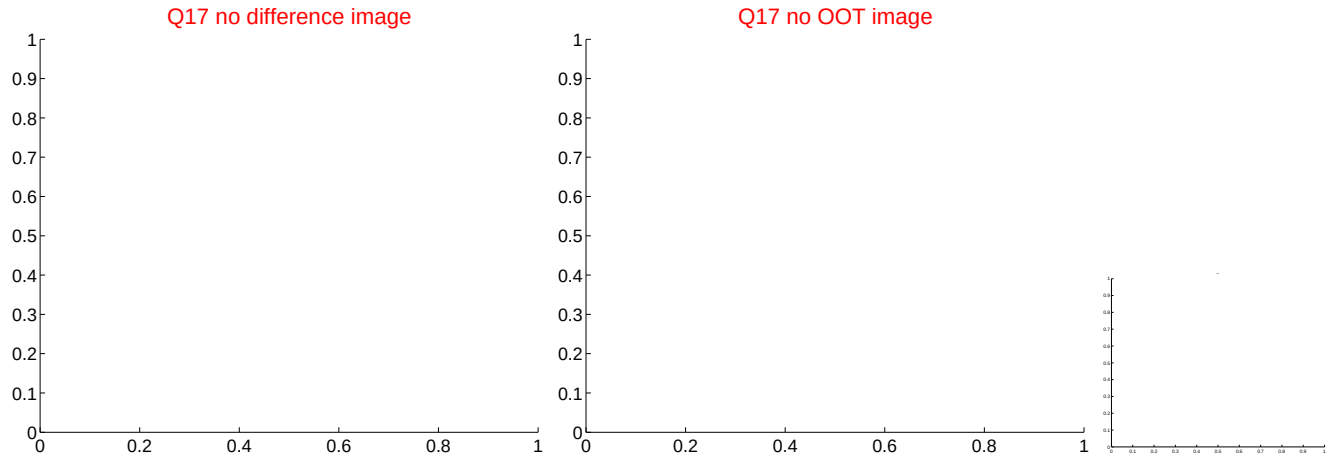


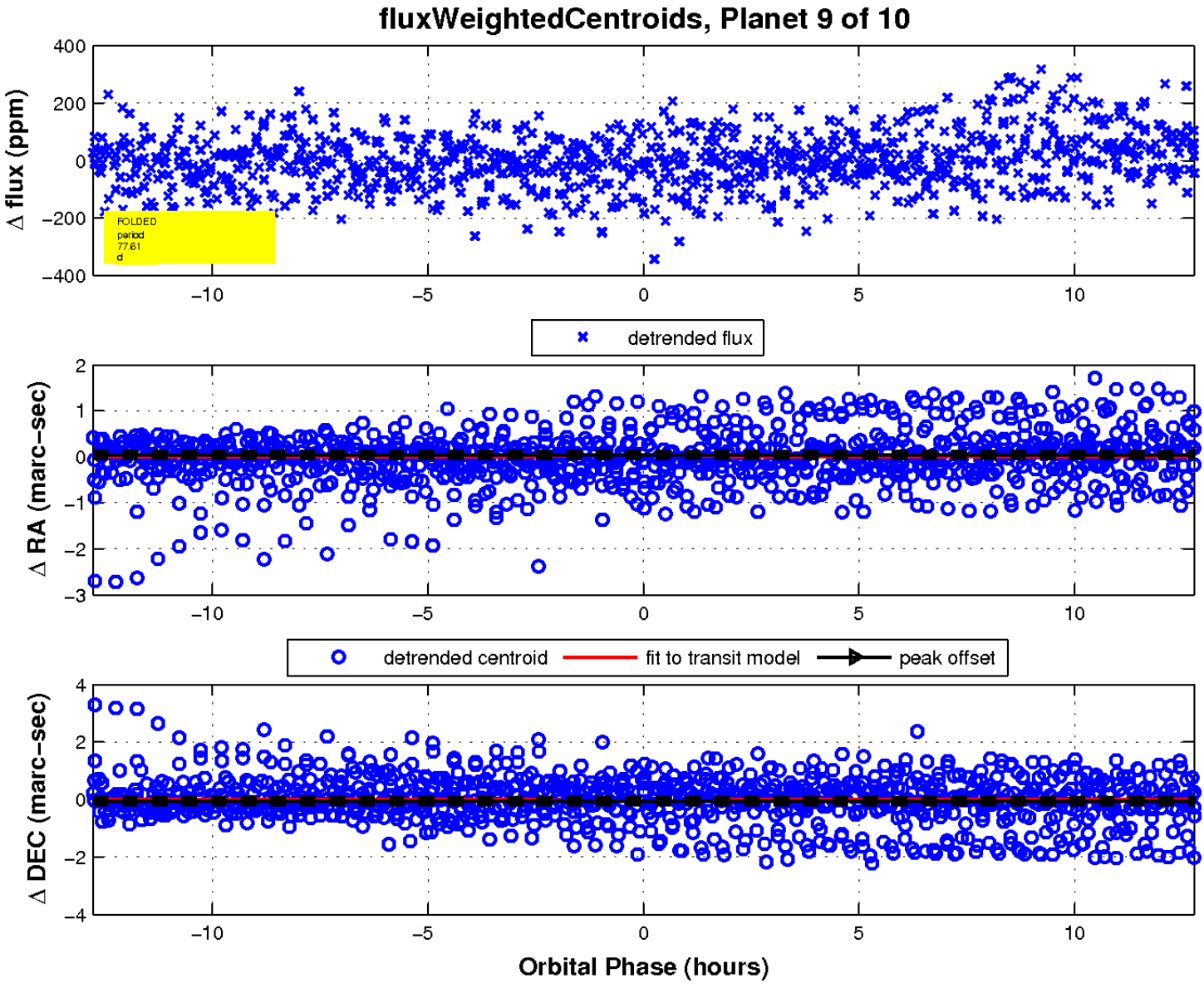




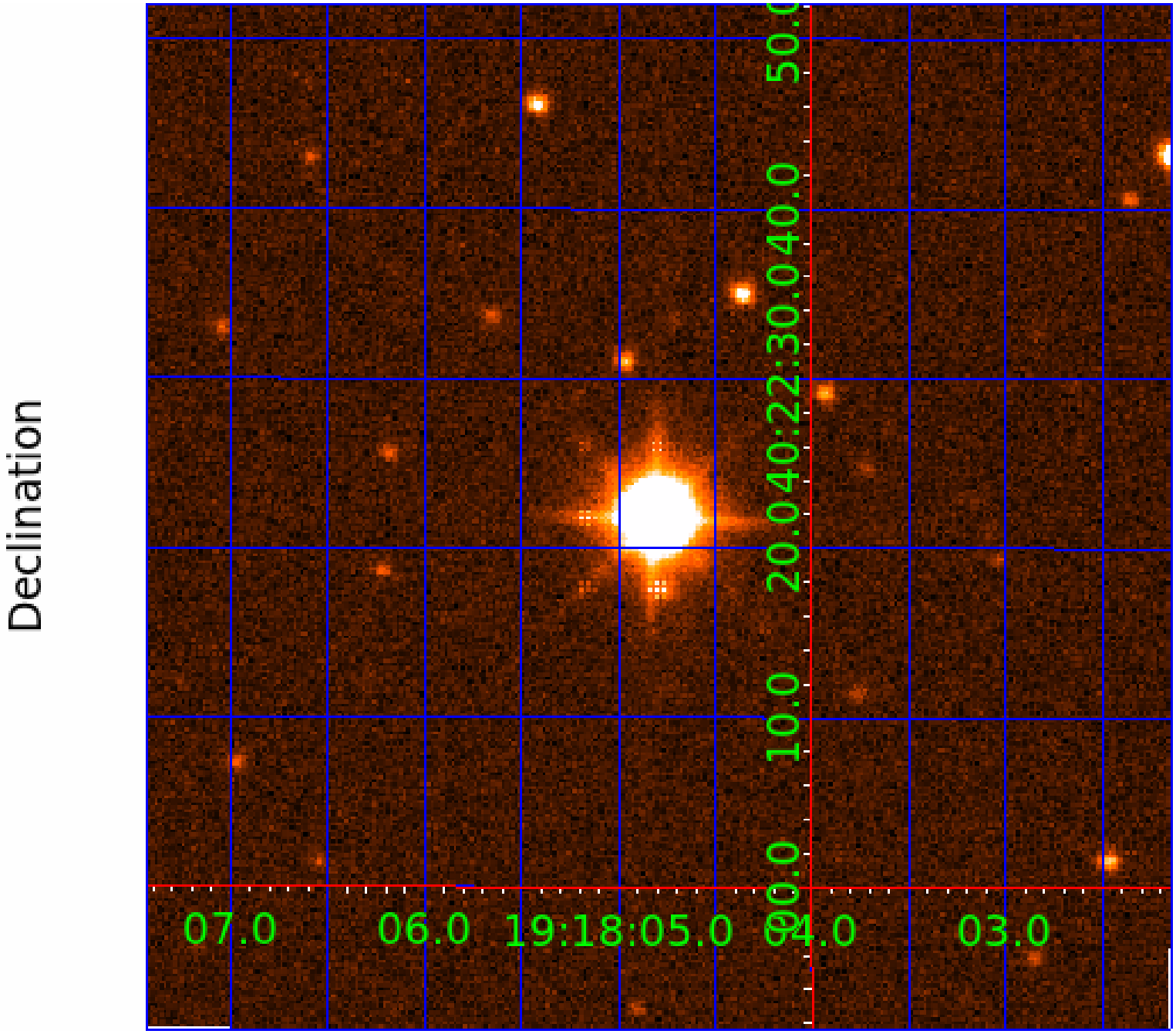


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image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10.0
00.0
07.0
06.0
19:18:05.0
04.0
03.0

KIC 005179328

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_\star$ ($R_\odot$)	$T_\star$ (K)	R_p ($R_\oplus$)	S_p ($S_\oplus$)
005179328-01	OBS	No	0.670370	131.764741	8.2	4.033	8.9	6.8	1.82	6762	0.60	21602.52
005179328-02	OBS	No	108.777871	185.898559	134.5	11.798	8.4	7.9	1.82	6762	2.36	24.41
005179328-04	OBS	No	50.596736	179.377582	7.5	0.919	9.0	0.3	1.82	6762	0.58	67.73
005179328-05	OBS	No	321.707316	141.046541	229.4	5.303	8.6	8.1	1.82	6762	3.00	5.75
005179328-06	OBS	No	102.672857	201.159806	177.8	2.224	8.2	8.7	1.82	6762	2.73	26.36
005179328-07	OBS	No	44.423528	165.932506	153.8	1.359	9.2	8.0	1.82	6762	2.58	80.56
005179328-08	OBS	No	31.414157	133.679706	116.3	2.102	8.4	9.1	1.82	6762	2.27	127.87
005179328-09	OBS	No	77.609623	148.121983	124.0	4.261	8.7	7.2	1.82	6762	2.30	38.29
005179328-10	OBS	No	125.588996	139.259222	156.4	9.832	8.1	8.6	1.82	6762	2.43	20.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005179328-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
005179328-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—CENT_SATURATED
005179328-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-07	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_SATURATED
005179328-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
005179328-10	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_TRACKER—TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED

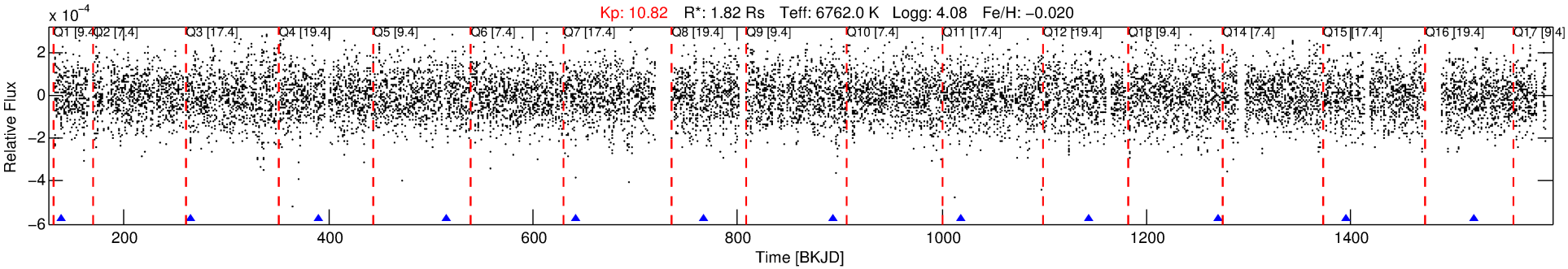
Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.
See `http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col` for comment definitions.

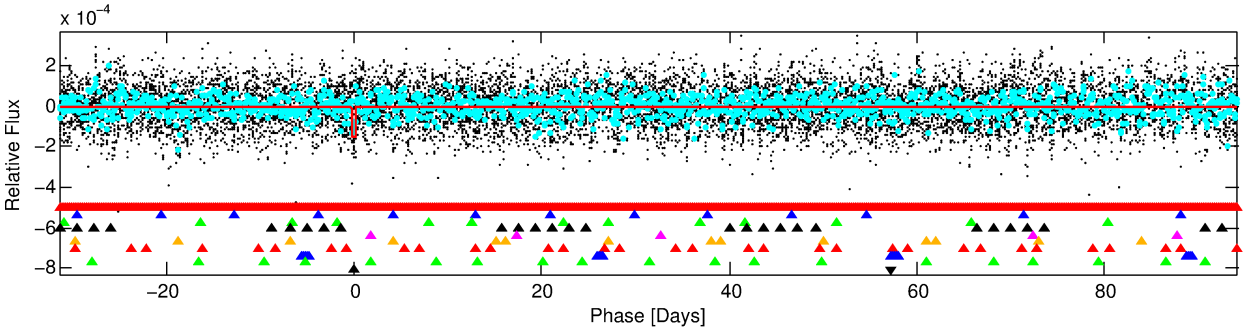
Ephemeris Match Information For 005179328-10

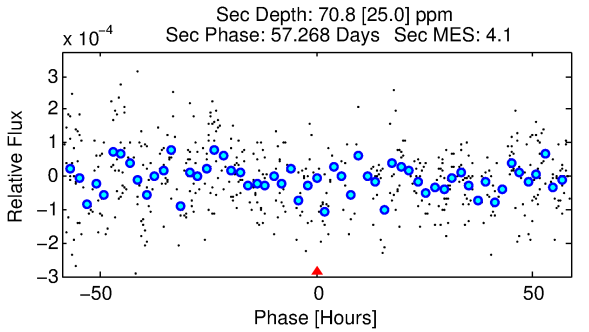
No Significant Match Found

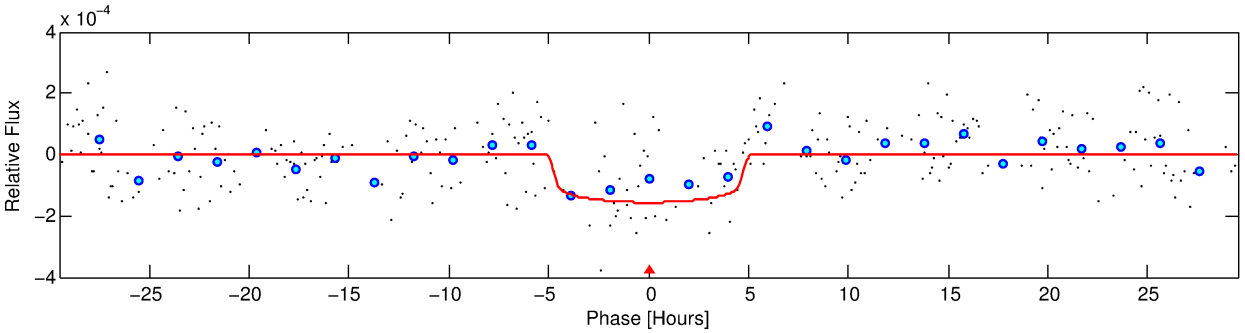
DV One-Page Summary

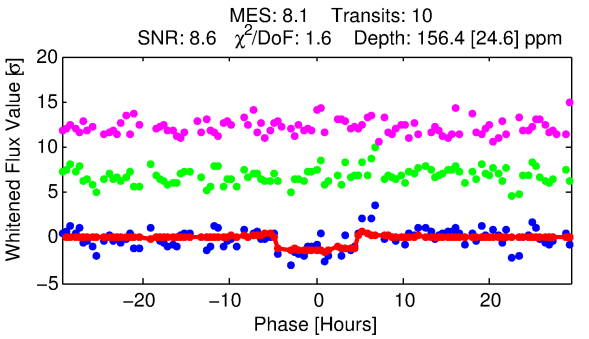
KIC: 5179328 Candidate: 10 of 10 Period: 125.589 d

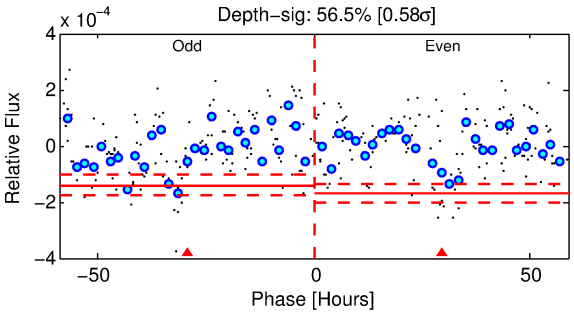


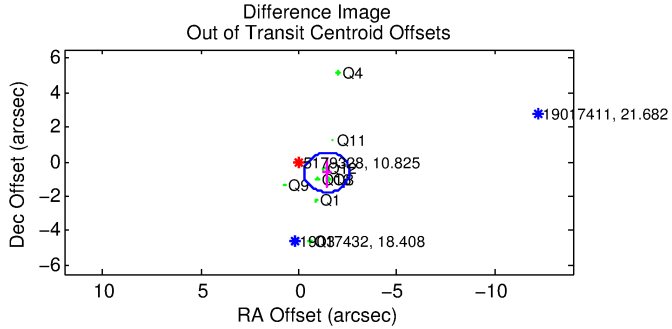












DV Fit Results:

Period = 125.58900 [0.00254] d
Epoch = 139.2592 [0.0127] BKJD
Rp/R* = 0.0123 [0.0052]
a/R* = 71.85 [167.22]
b = 0.69 [1.75]

Seff = 20.15 [5.18]
Teq = 540 [35] K
Rp = 2.43 [1.13] Re
a = 0.5543 [0.0922] AU

Ag = 2025.00 [1937.07] [1.04σ]
Teffp = 5603 [1294] K [3.91σ]

DV Diagnostic Results:

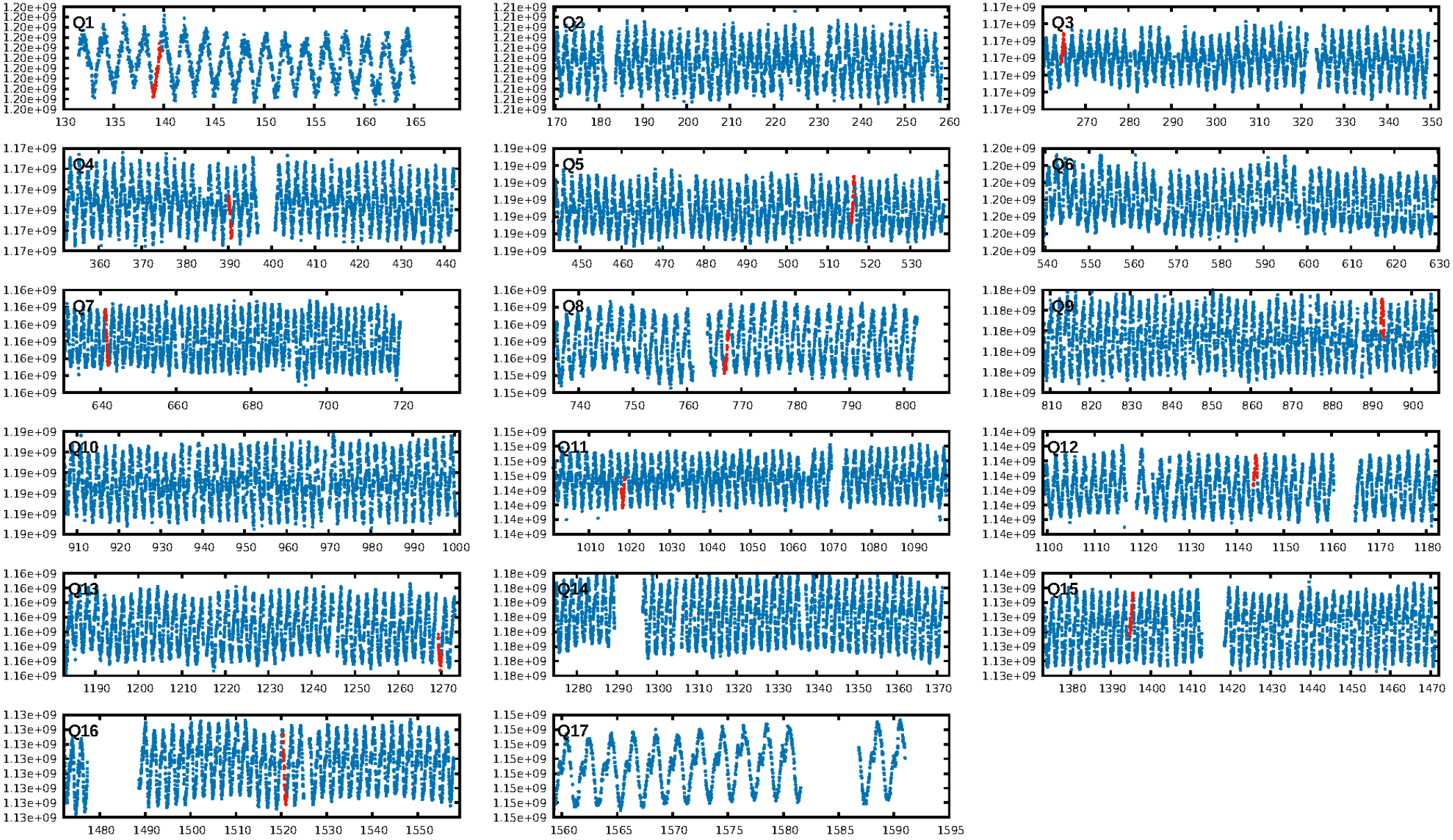
ShortPeriod−sig: 100.0% [24.49σ]
LongPeriod−sig: 100.0% [421.34σ]
ModelChiSquare2−sig: 1.5%
ModelChiSquareGof−sig: 100.0%
Bootstrap−pfa: N/A
RollingBand−fgt: 1.00 [9/9]
GhostDiagnostic−chr: −2.374

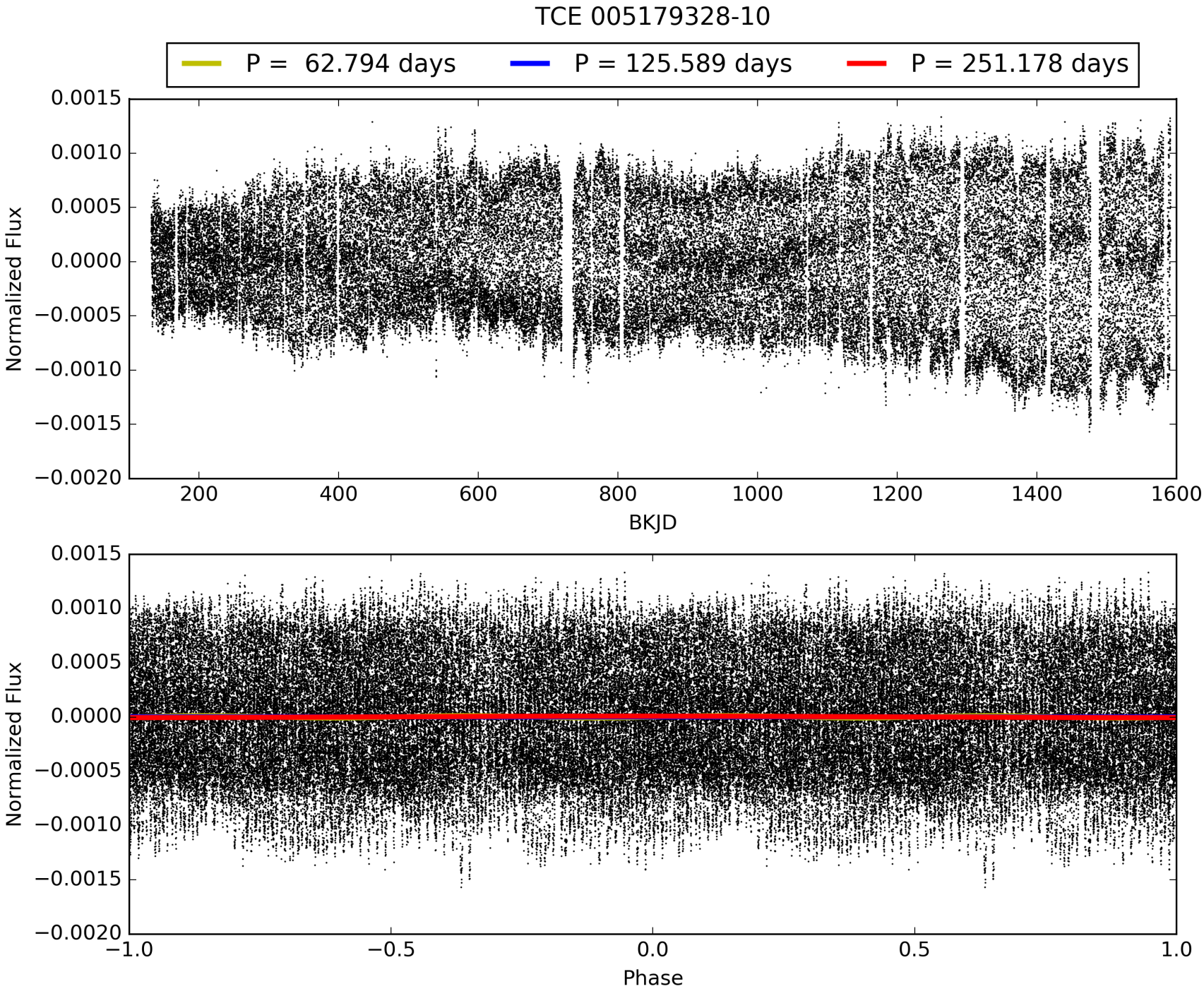
Centroid−sig: 30.9%
Centroid−so: 0.451 arcsec [0.58σ]
OotOffset−rm: 1.545 arcsec [4.04σ]
KicOffset−rm: 1.383 arcsec [2.74σ]
OotOffset−st: 0/2/4/2 [8]
KicOffset−st: 0/2/4/2 [8]
DiffImageQuality−fgm: 0.25 [2/8]
DiffImageOverlap−fno: 0.00 [0/11]

Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 −− Date Generated: 01−Feb−2016 20:03:02 Z

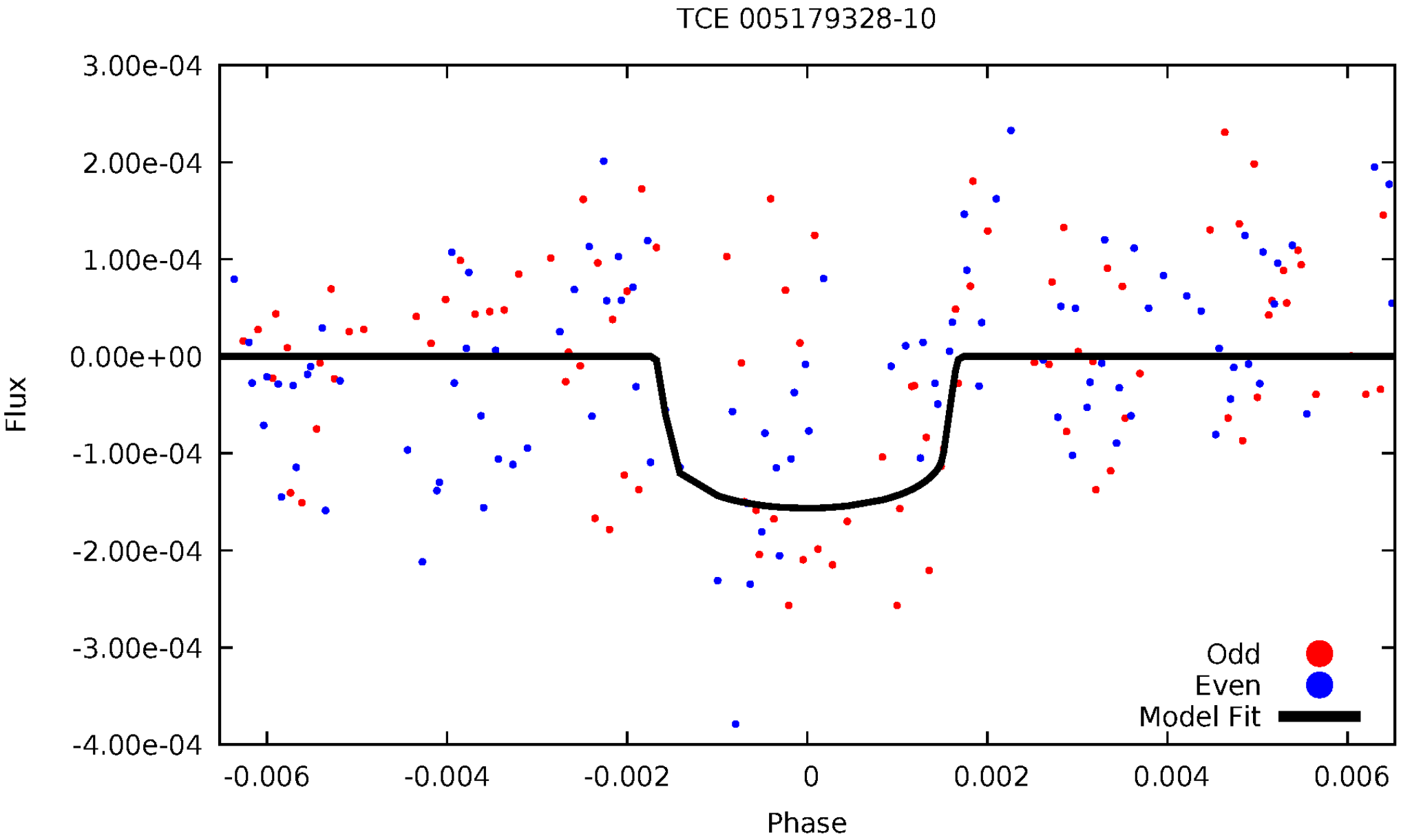
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005179328-10, PDC Light Curves

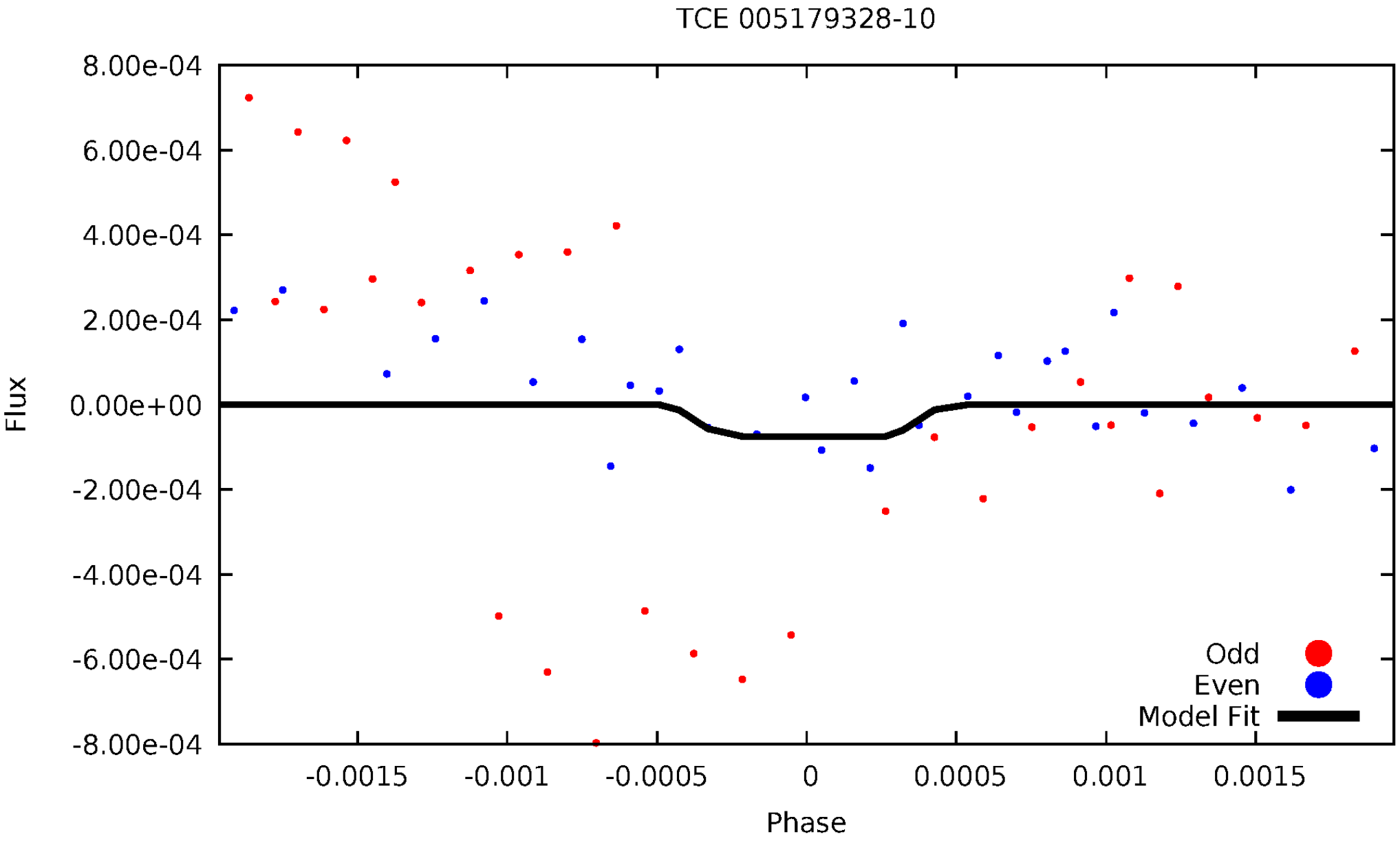



TCE 005179328-10
P = 62.794 days
P = 125.589 days
P = 251.178 days
Normalized Flux
0.0015
0.0010
0.0005
0.0000
−0.0005
−0.0010
−0.0015
−0.0020
200
400
600
800
1000
1200
1400
1600
BKJD
Normalized Flux
−1.0
−0.5
0.0
0.5
1.0
Phase

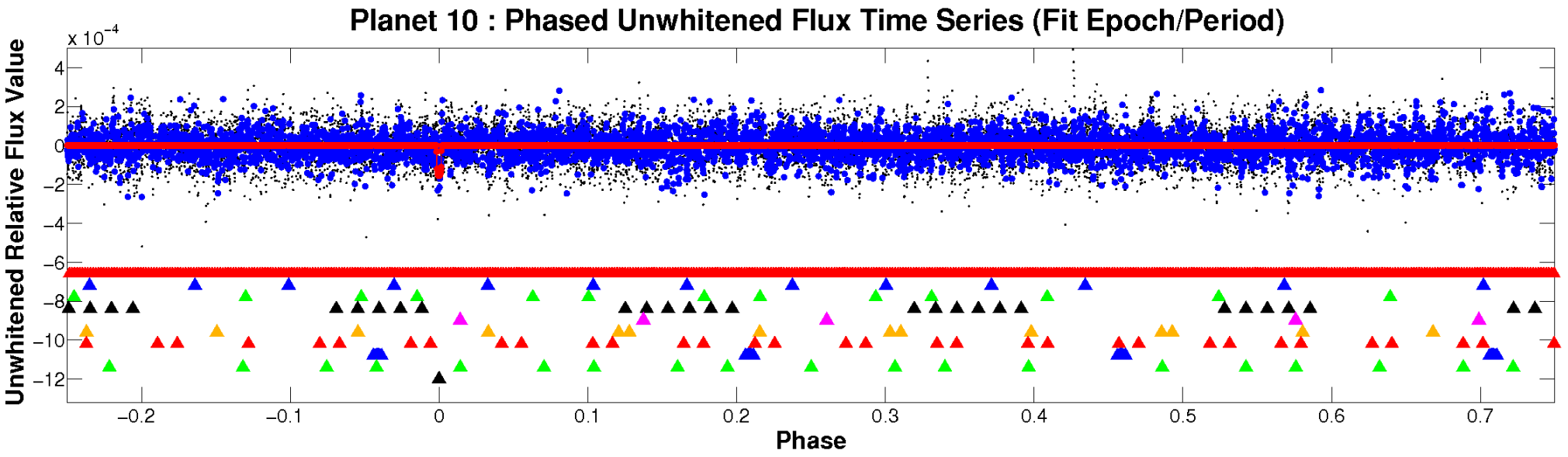
DV Odd/Even

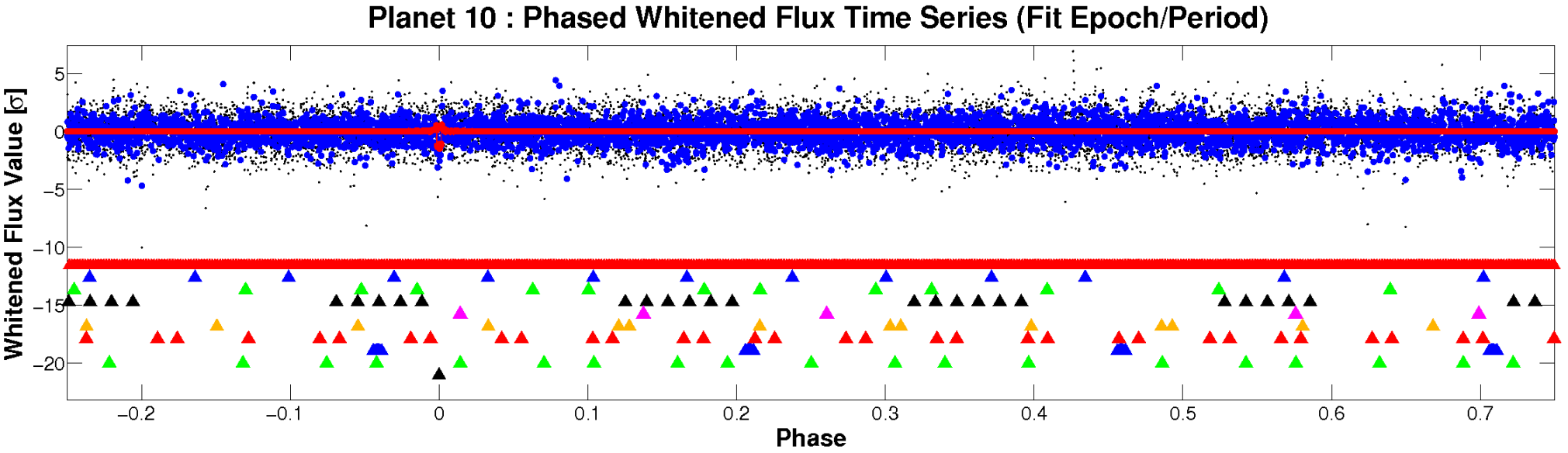

TCE 005179328-10
3.00e-04
2.00e-04
1.00e-04
0.00e+00
-1.00e-04
-2.00e-04
-3.00e-04
-4.00e-04
Flux
-0.006
-0.004
-0.002
0
0.002
0.004
0.006
Phase
Odd
Even
Model Fit

ALT Odd/Even


TCE 005179328-10
8.00e-04
6.00e-04
4.00e-04
2.00e-04
0.00e+00
-2.00e-04
-4.00e-04
-6.00e-04
-8.00e-04
Flux
-0.0015
-0.001
-0.0005
0
0.0005
0.001
0.0015
Phase
Odd
Even
Model Fit

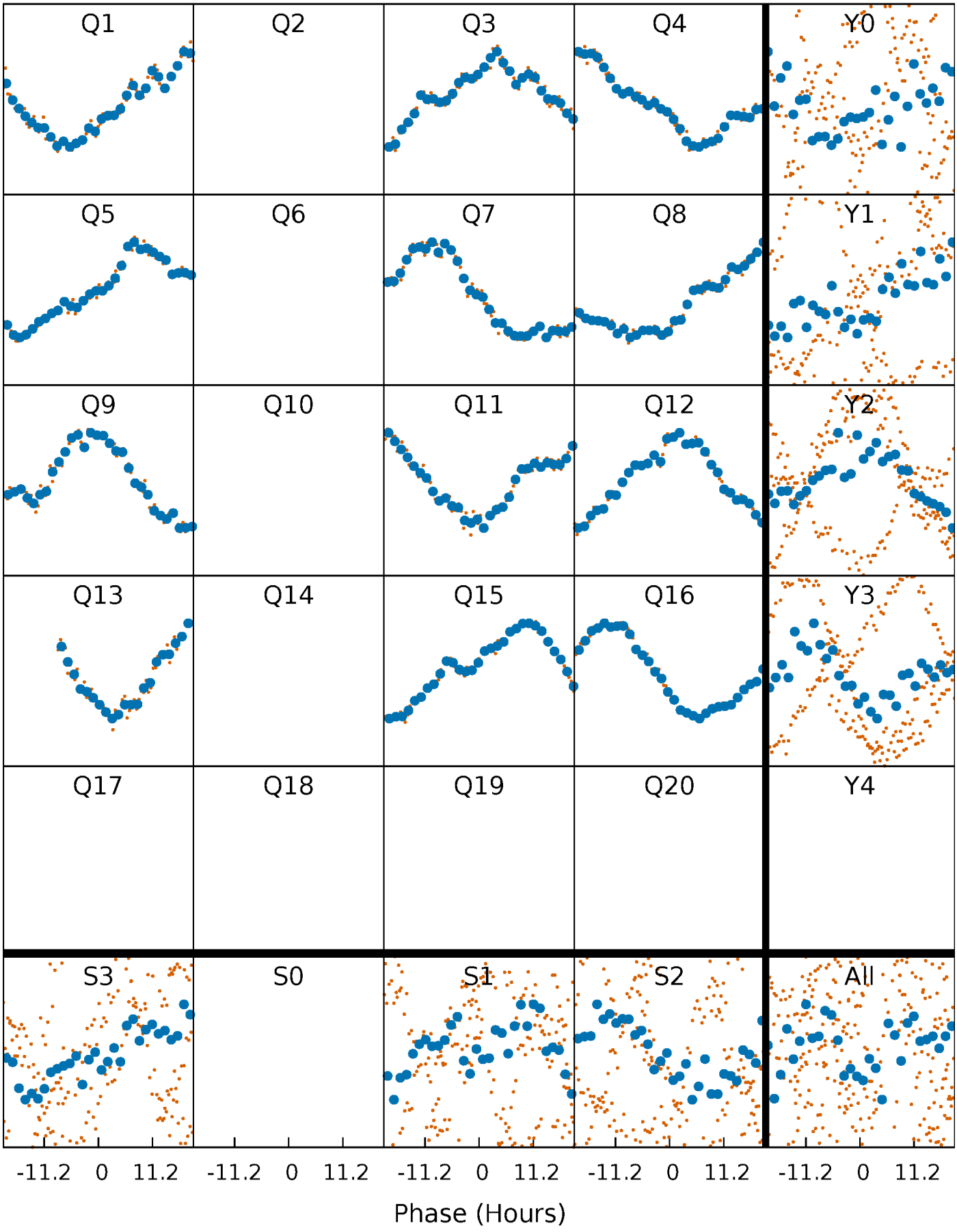
Non-Whitened Vs. Whitened Light Curve





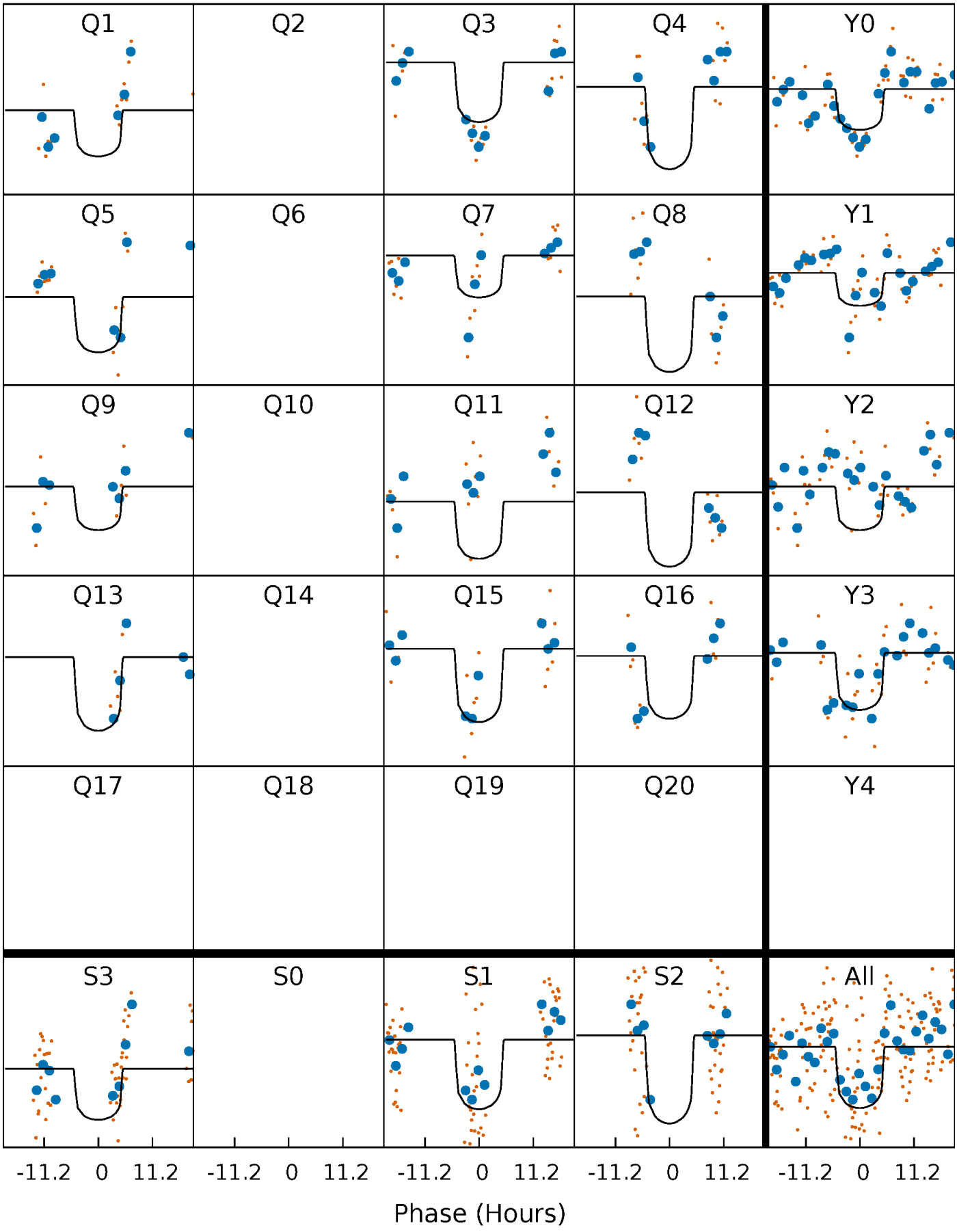
PDC Quarter-Phased Transit Curves

TCE 005179328-10 P=125.588996 Days T_0=139.259222 (BKJD)



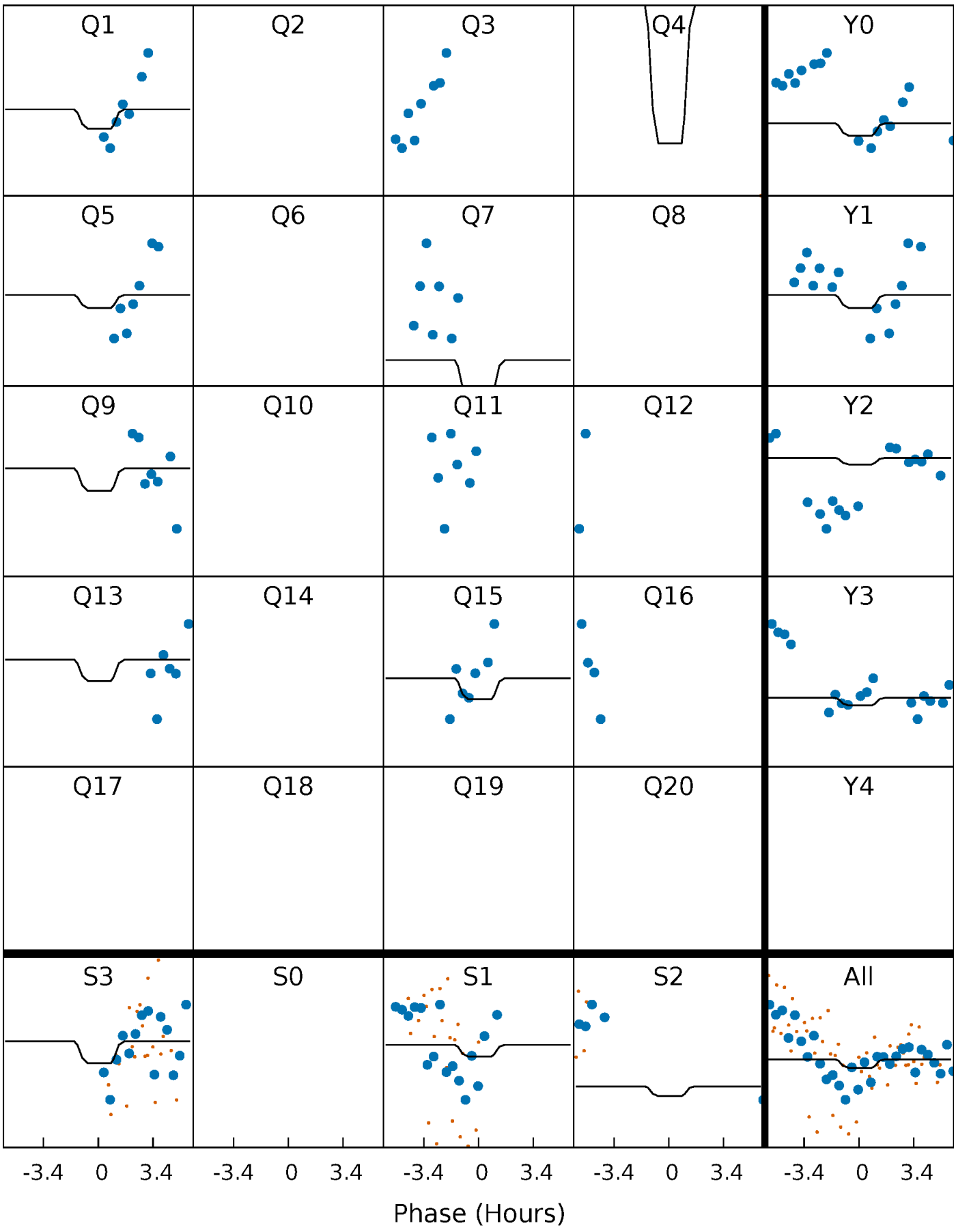
DV Quarter-Phased Transit Curves

TCE 005179328-10 P=125.588996 Days T_0=139.259222 (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

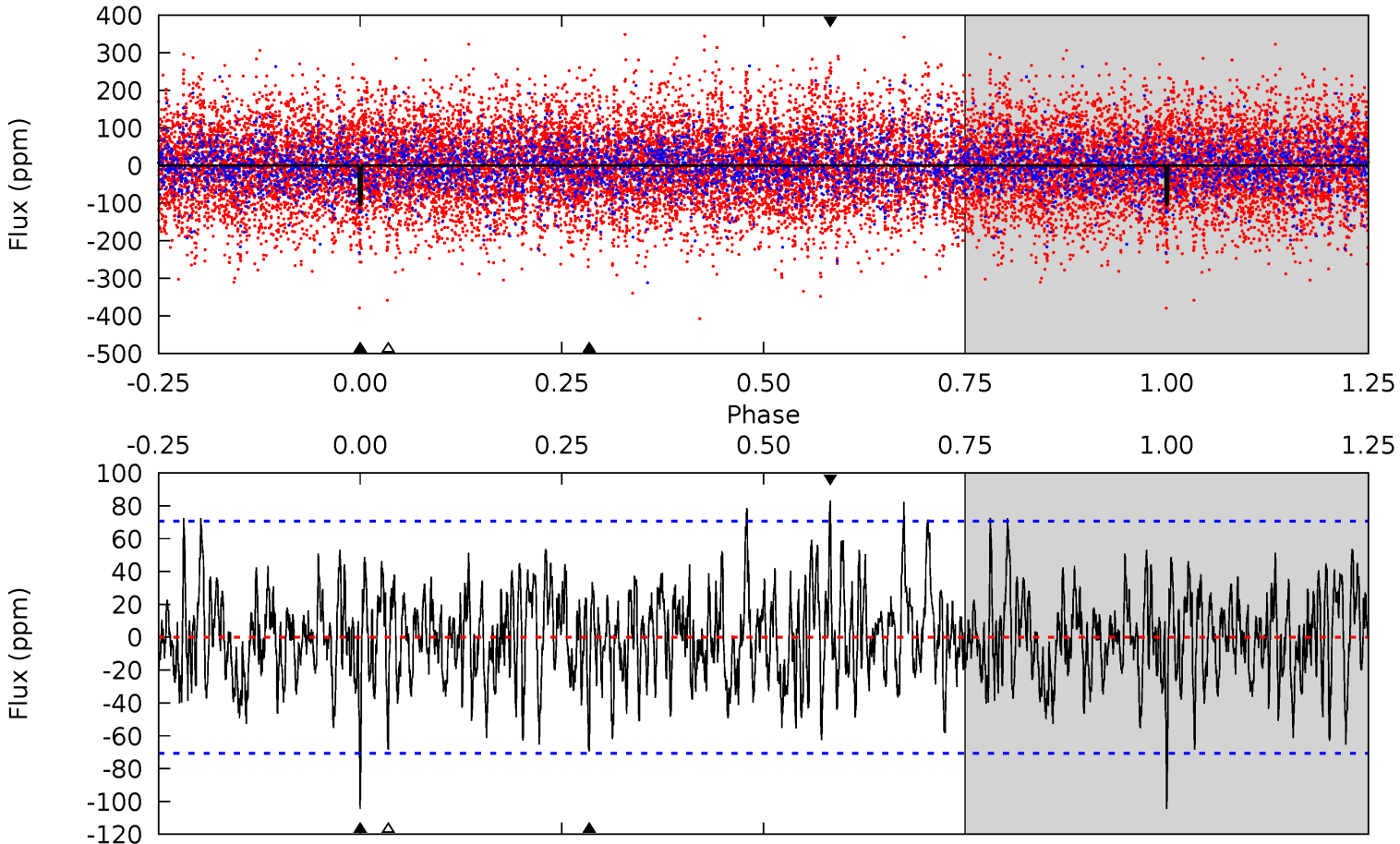
TCE 005179328-10 P=125.569209 Days T_0=139.414543 (BKJD)

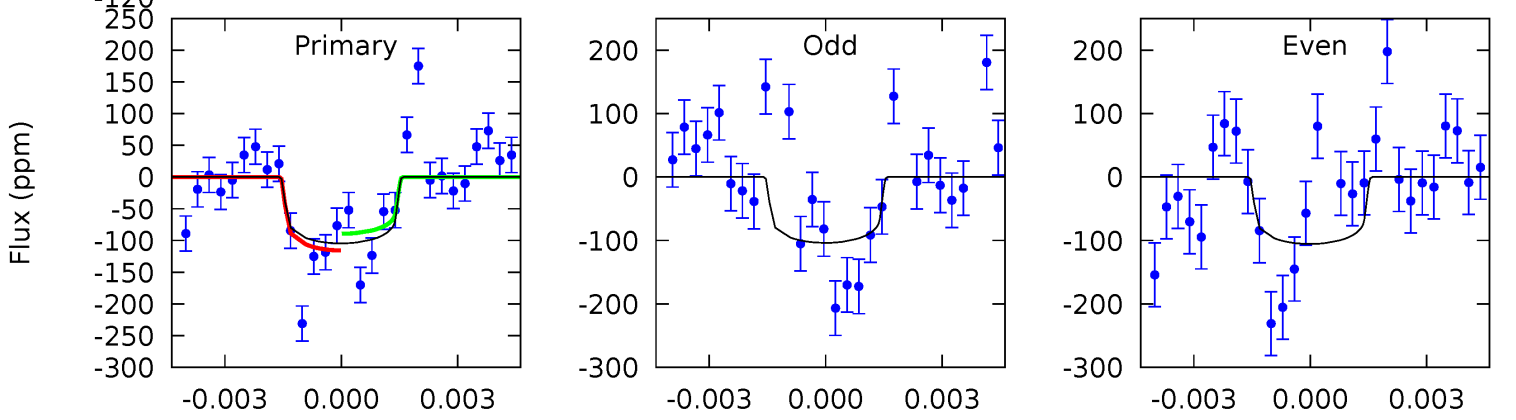


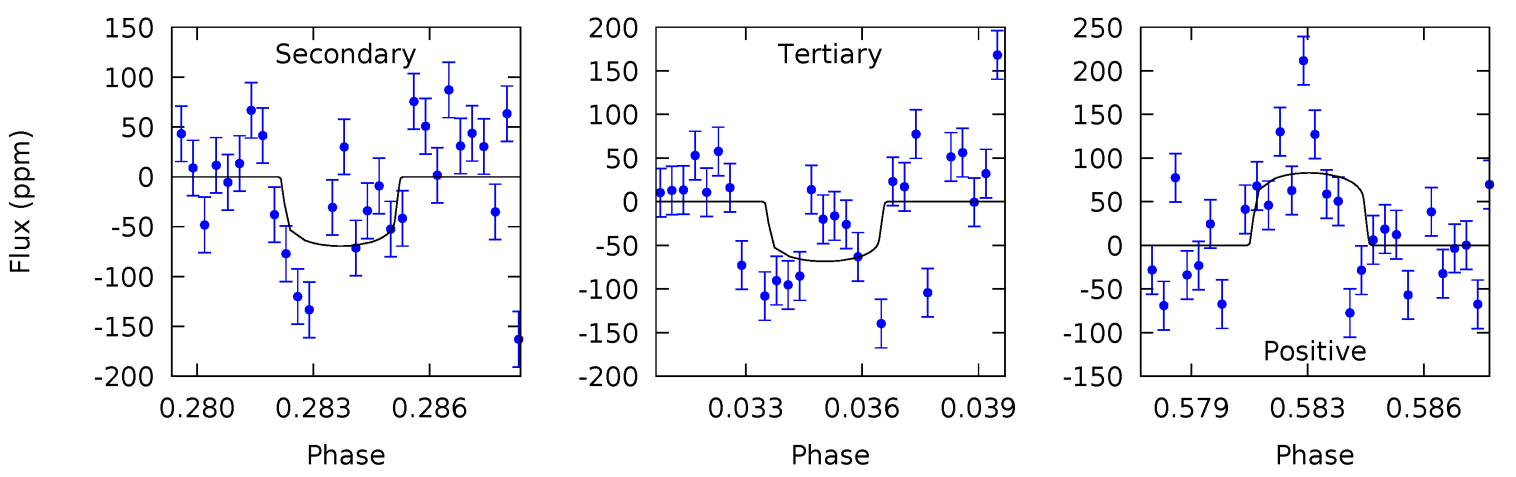
DV Model-Shift Uniqueness Test

005179328-10, P = 125.588996 Days, E = 13.670226 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.74	5.14	5.06	6.15	5.24	2.94	1.81	2.68	1.59	0.08	-1.01	0.07	0.75	0.44	0.98



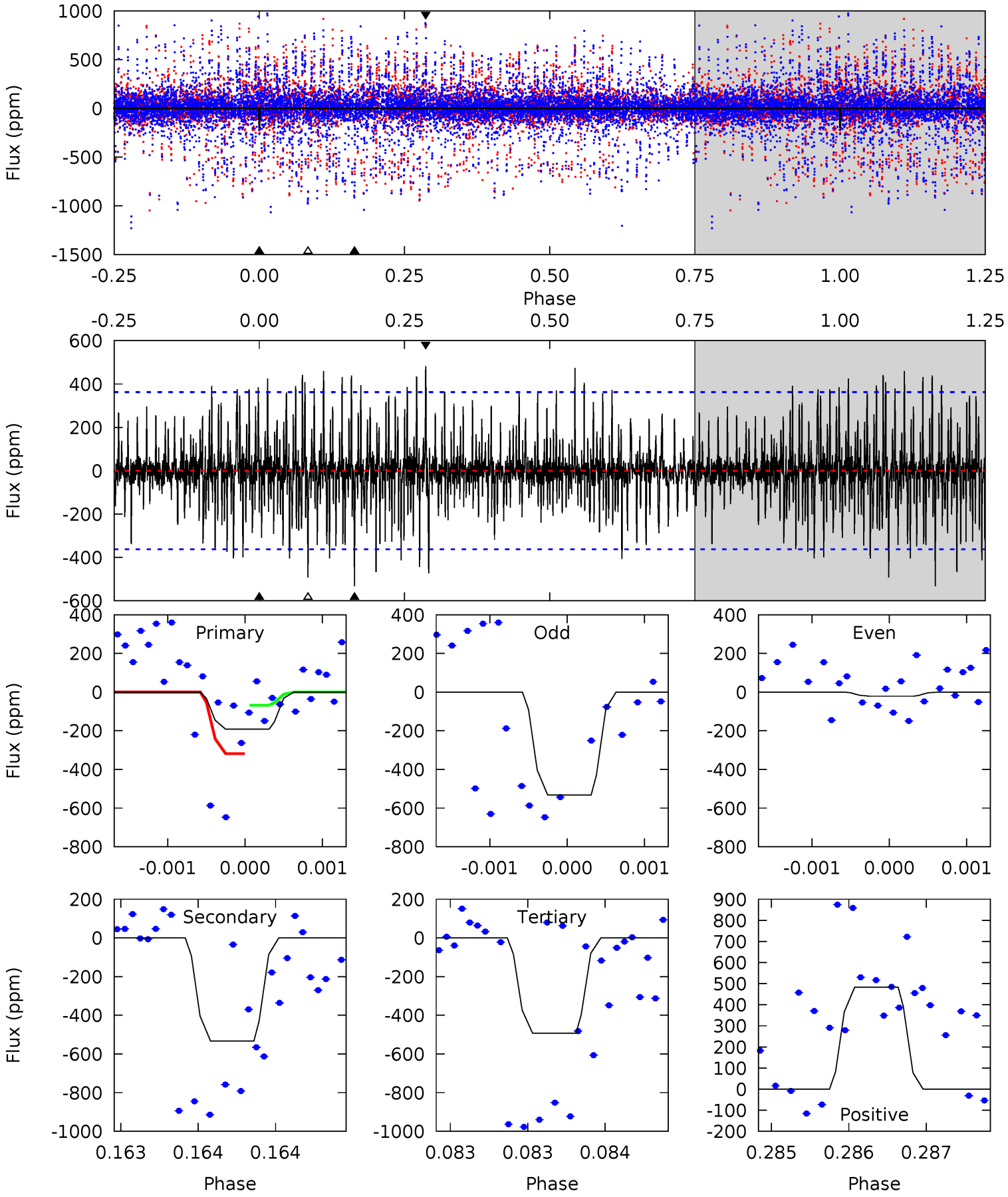




Alt Model-Shift Uniqueness Test

005179328-10, P = 125.569209 Days, E = 13.845334 Days

Pri	Sec	Ter	Pos	FA_1	FA_2	F_{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.90	8.06	7.44	7.31	5.48	3.34	1.75	-4.54	-4.41	0.61	0.74	3.08	1.33	0.48	1.91



Stellar Parameters For KIC 005179328

	$T_{\rm eff}(K)$	$\log(g)$	[Fe/H]	R ($R_\odot$)	$M(M_\odot)$	$p_\star$ (g·cm^{-3})
	6762^{+81}_{-81}	$4.077^{+0.143}_{-0.117}$	$-0.020^{+0.150}_{-0.150}$	$1.818^{+0.307}_{-0.341}$	$1.444^{+0.115}_{-0.115}$	$0.338^{+0.242}_{-0.122}$
	+1%/-1%	+4%/-3%	+750%/-750%	+17%/-19%	+8%/-8%	+72%/-36%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005179328-10 / KOI

Detrend	Depth (ppm)	R_p ($R_\oplus$)	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-69±14	$2.38^{+1.06}_{-0.94}$	756^{+34}_{-37}	5589^{+1636}_{-801}	2120^{+3468}_{-1151}
Alt.	-533±66	$1.73^{+0.99}_{-0.93}$	754^{+35}_{-37}	13214^{+16831}_{-3906}	$30402^{+108047}_{-18540}$

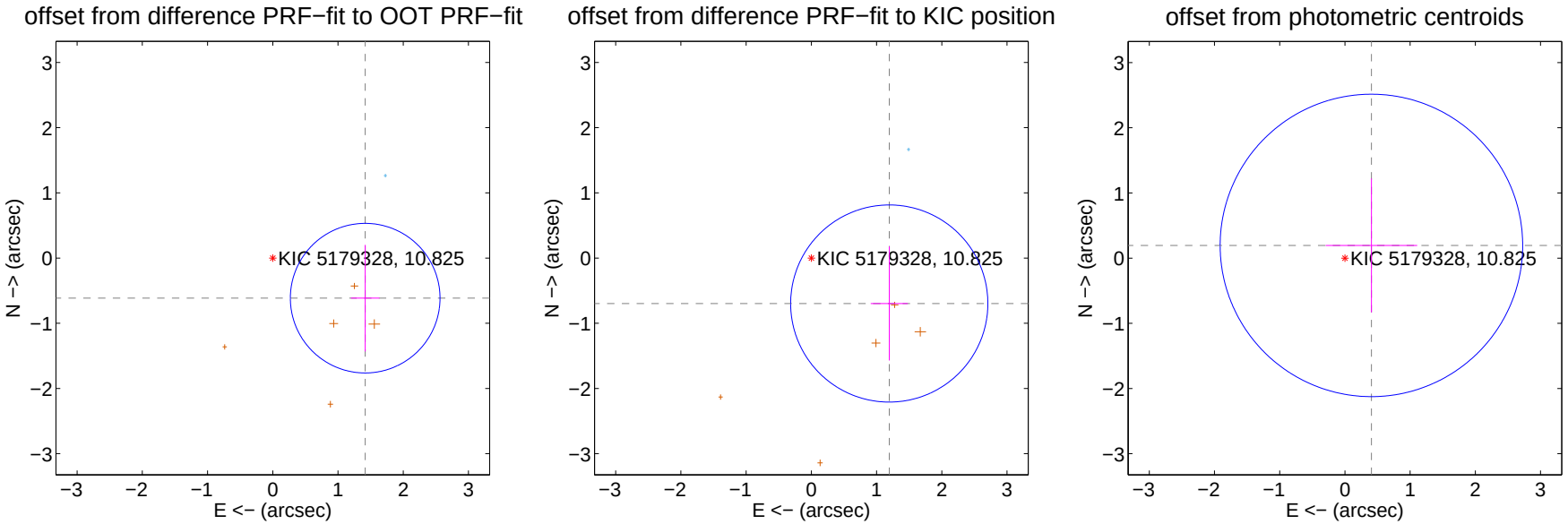
T_{max} = Theoretical Maximum Planetary Temperature
T_{obs} = Observed Planetary Temperature (Assuming A=0.3)
A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

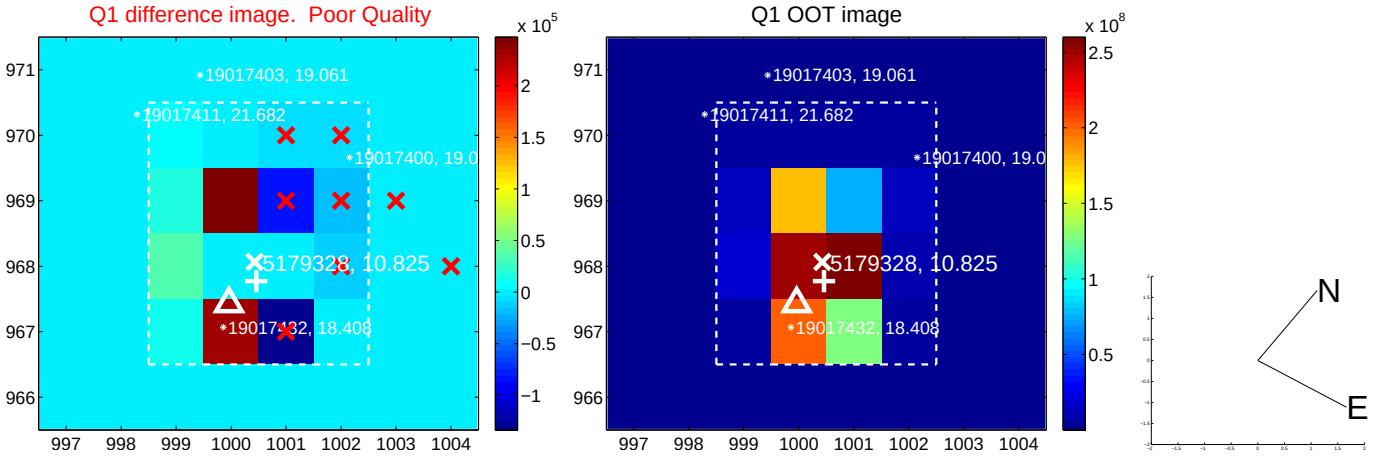
Supplemental centroid analysis for 005179328-10. Kepler magnitude: 10.82. Transit SNR 8.56
There are 2 quarters with good PRF difference image offsets
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

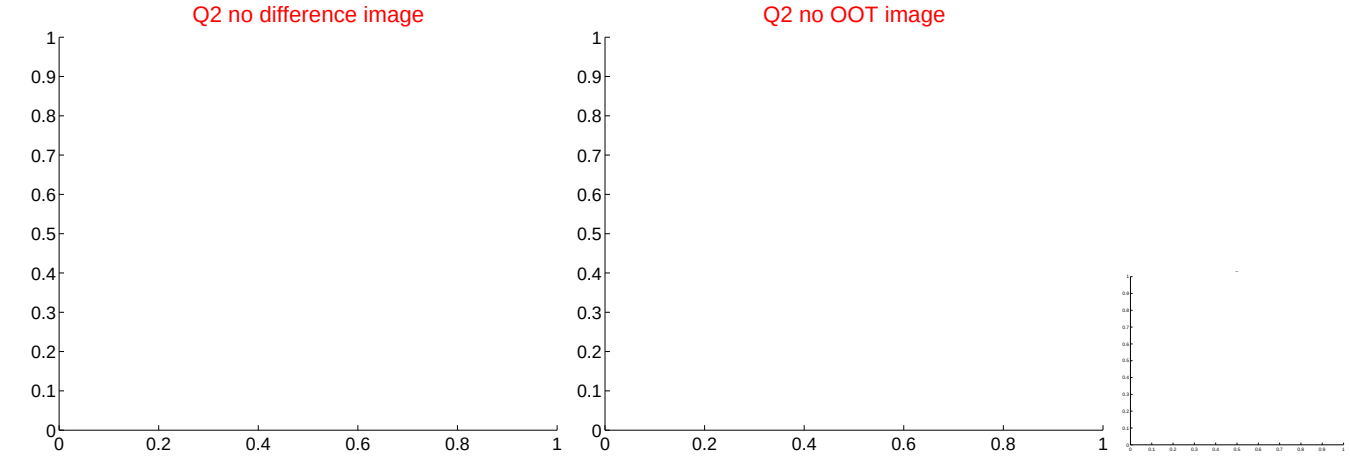
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.545 ± 0.382	4.04	-1.417 ± 0.219	-0.615 ± 0.817
PRF-fit source offset from KIC position	1.383 ± 0.504	2.74	-1.194 ± 0.284	-0.697 ± 0.874
photometric centroid source offset	0.45 ± 0.77	0.58	-0.41 ± 0.70	0.19 ± 1.03

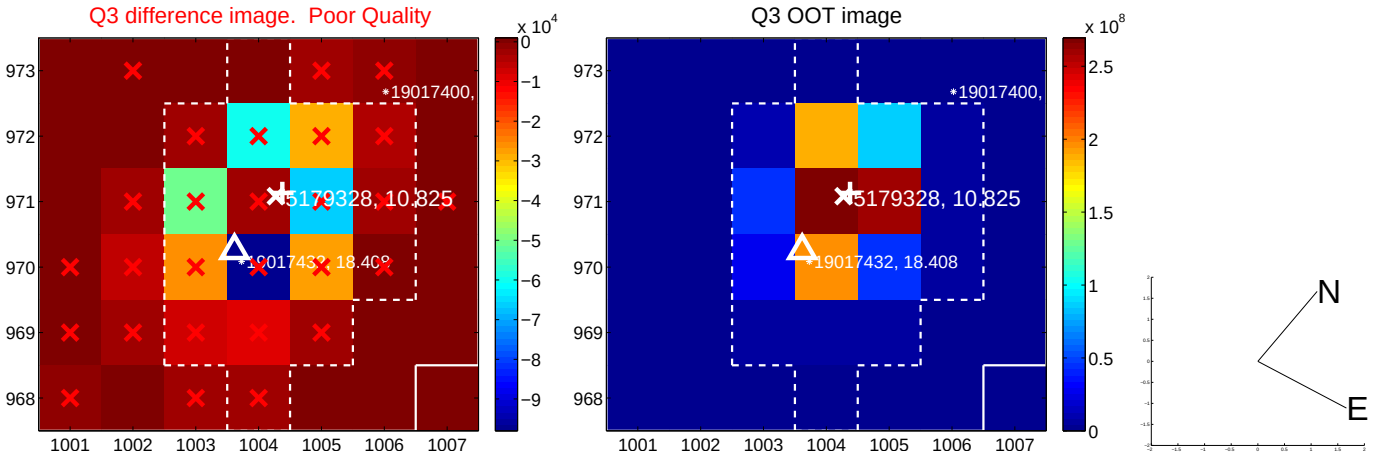


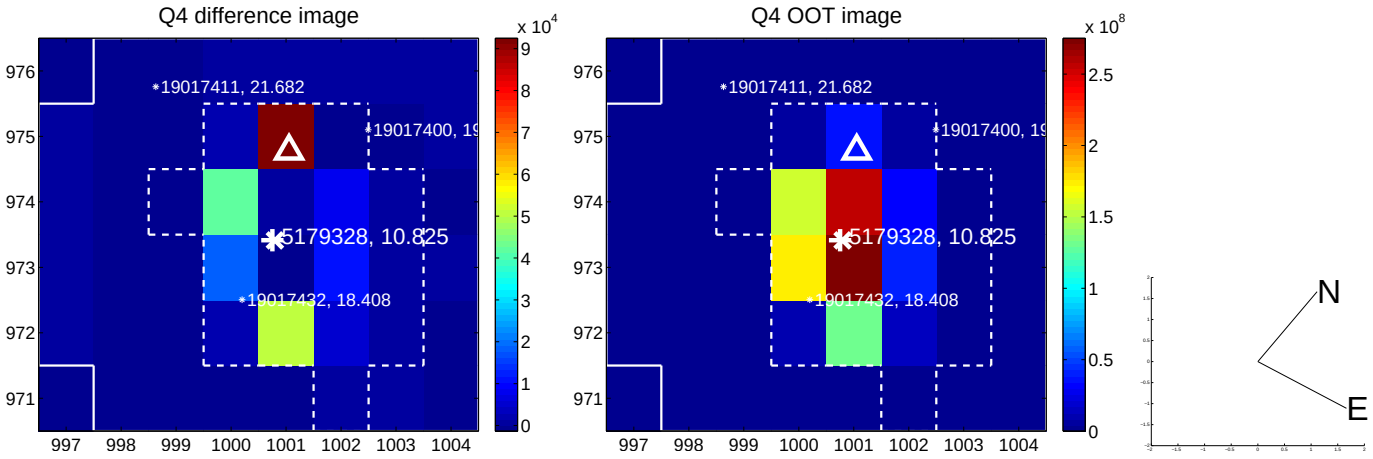
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one-σ uncertainty. Blue circle: three-σ. Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs $> 15,000,000$ are from the UKIRT catalog.

white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

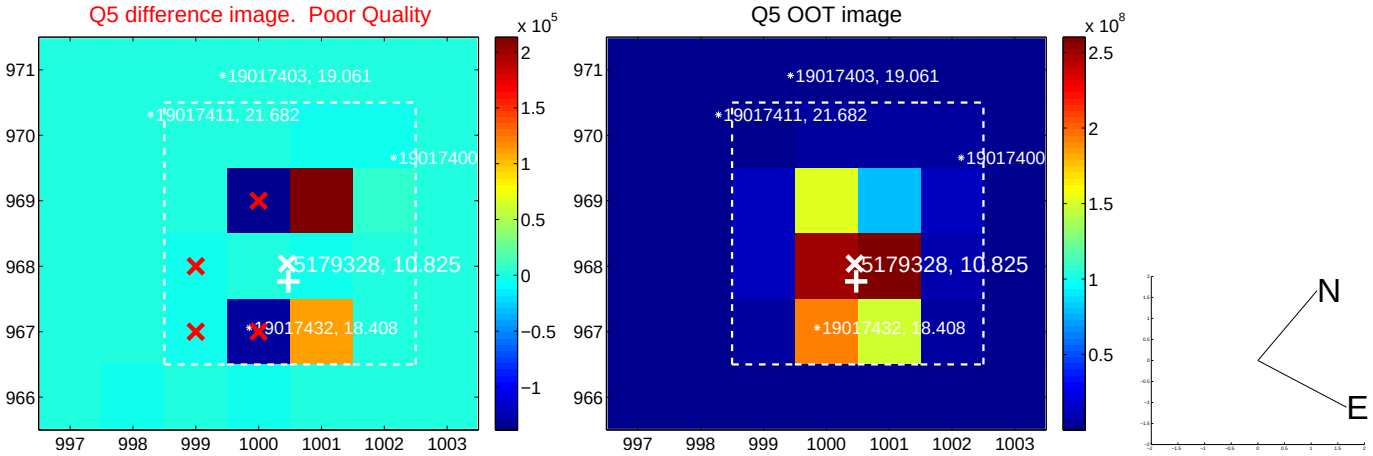


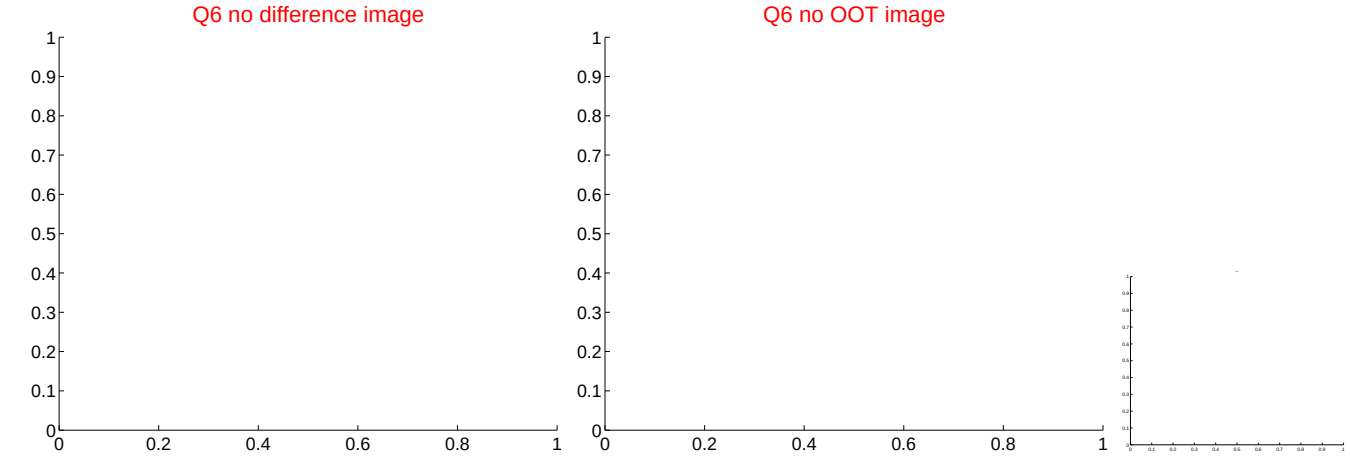


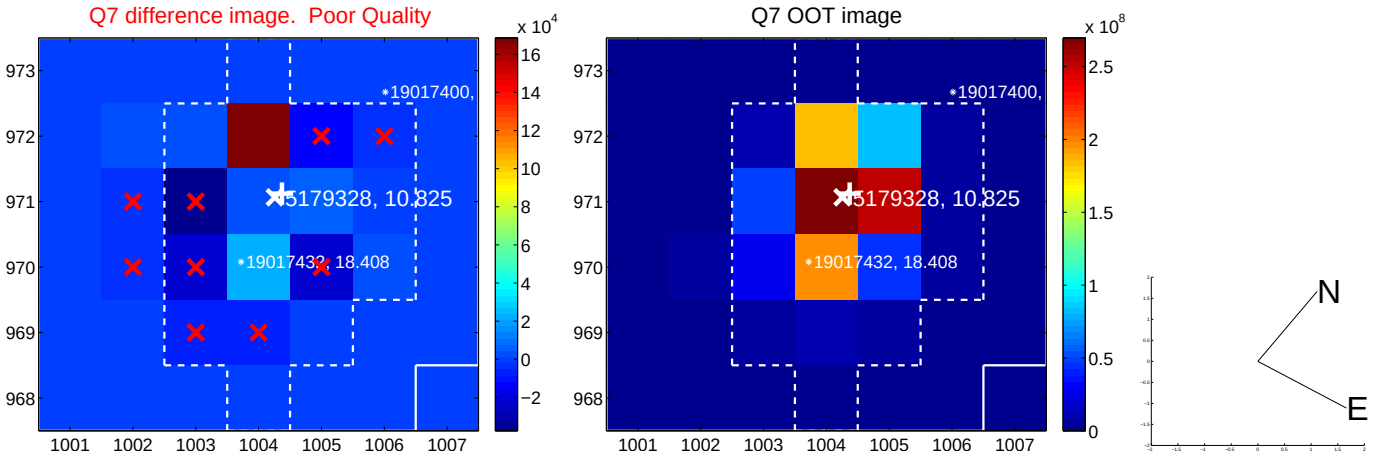


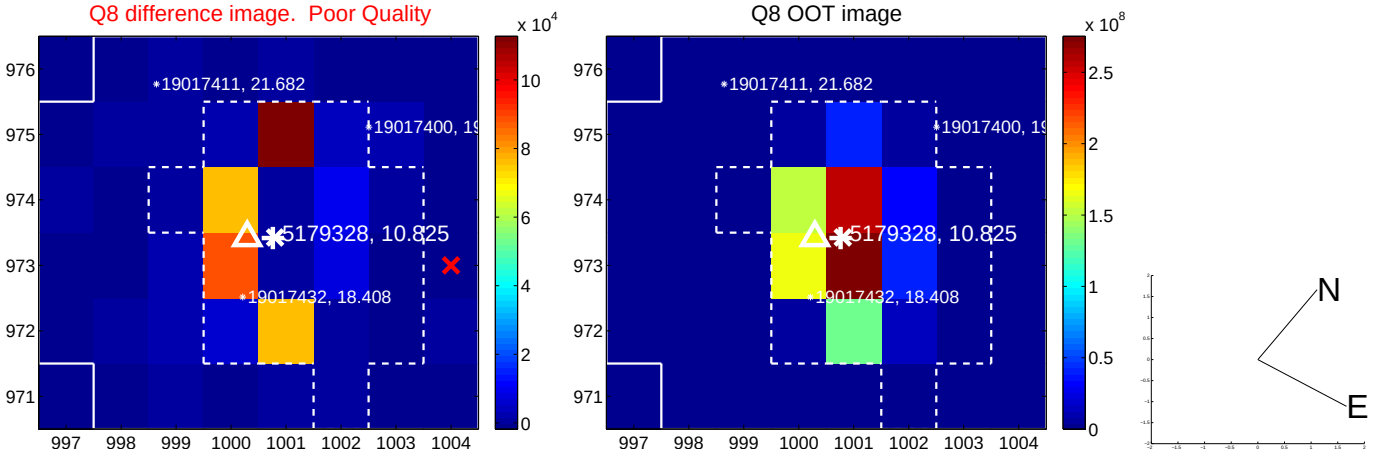


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

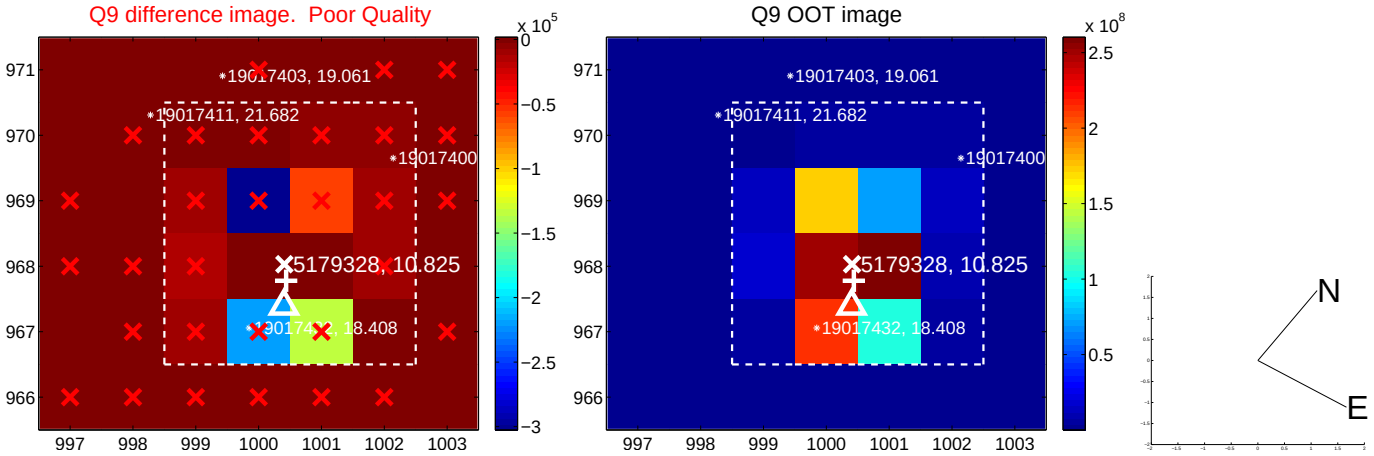


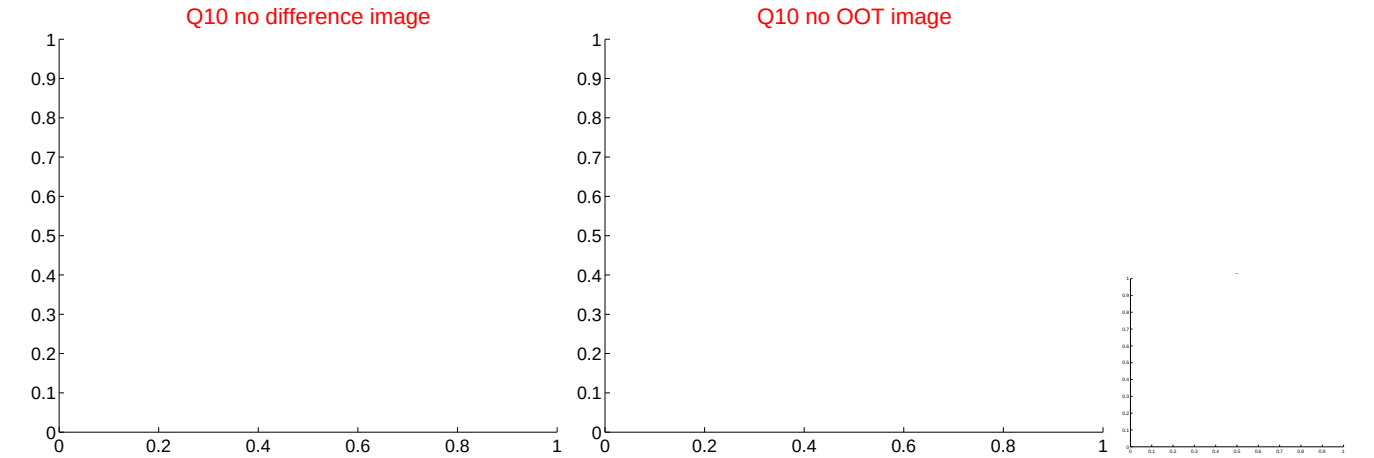


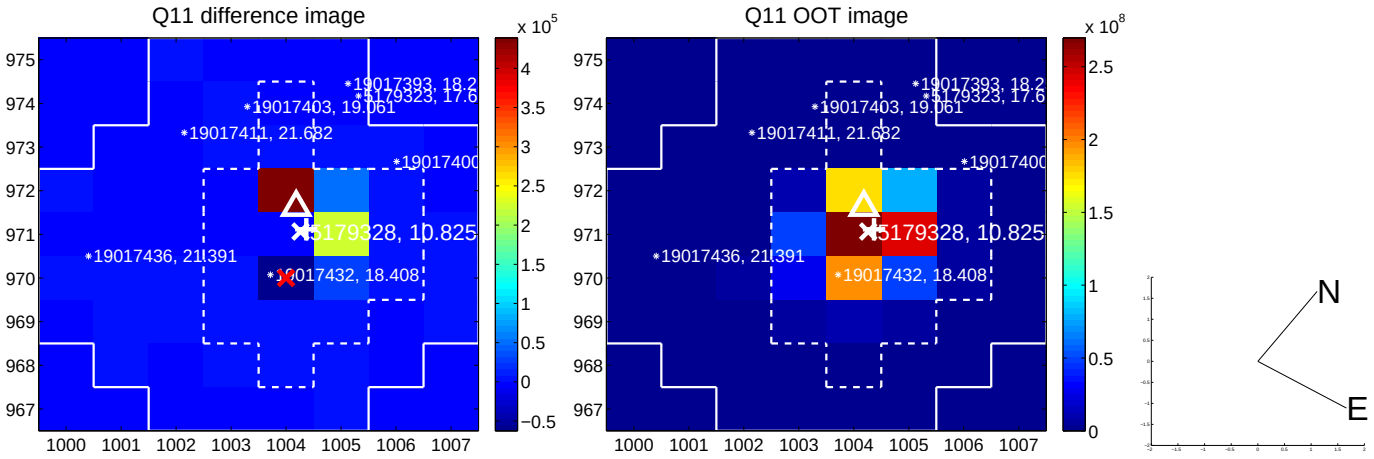


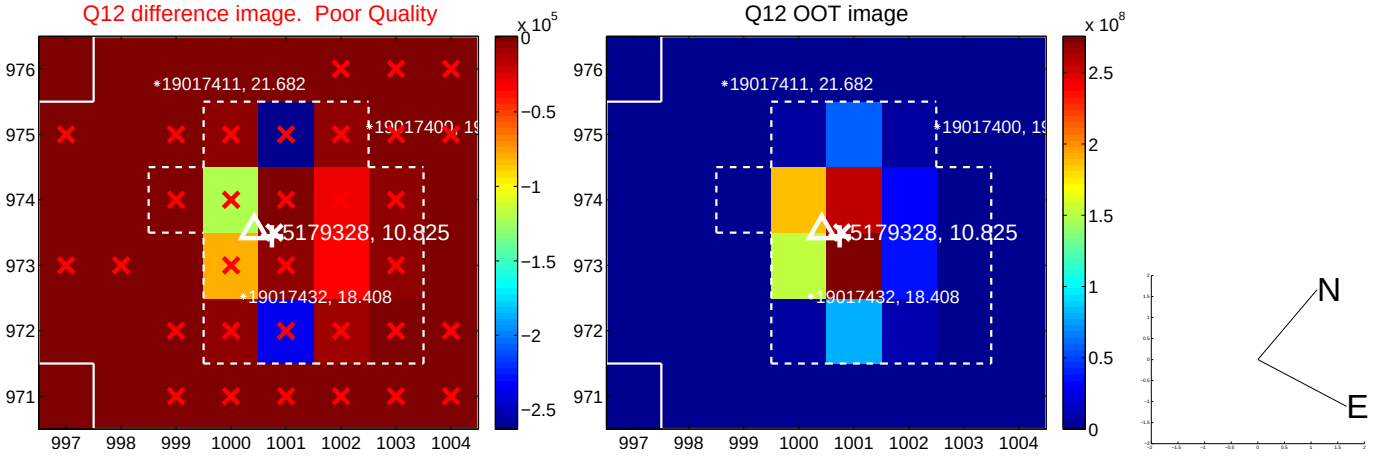


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

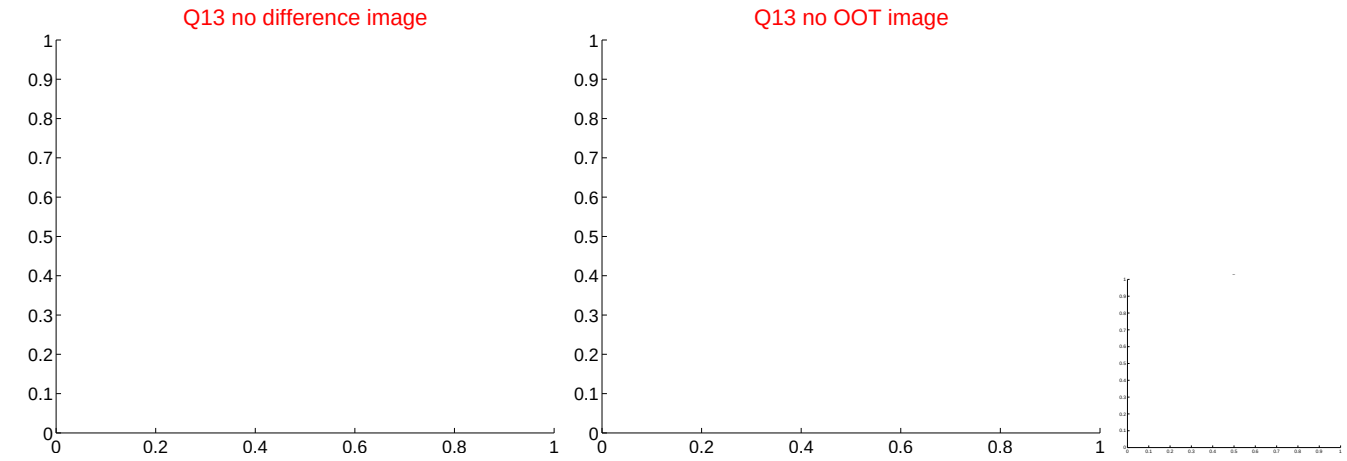


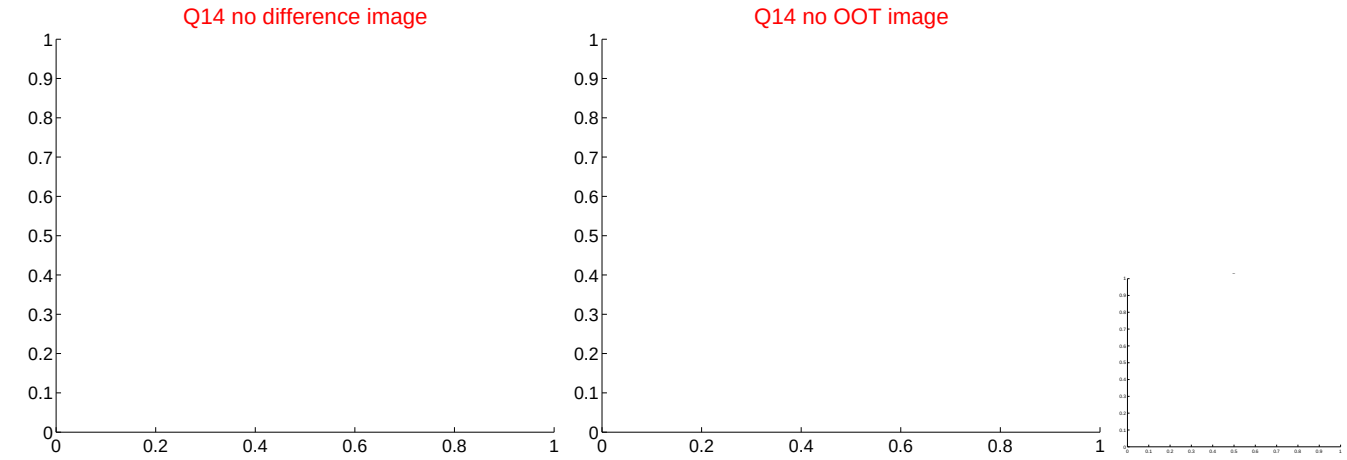


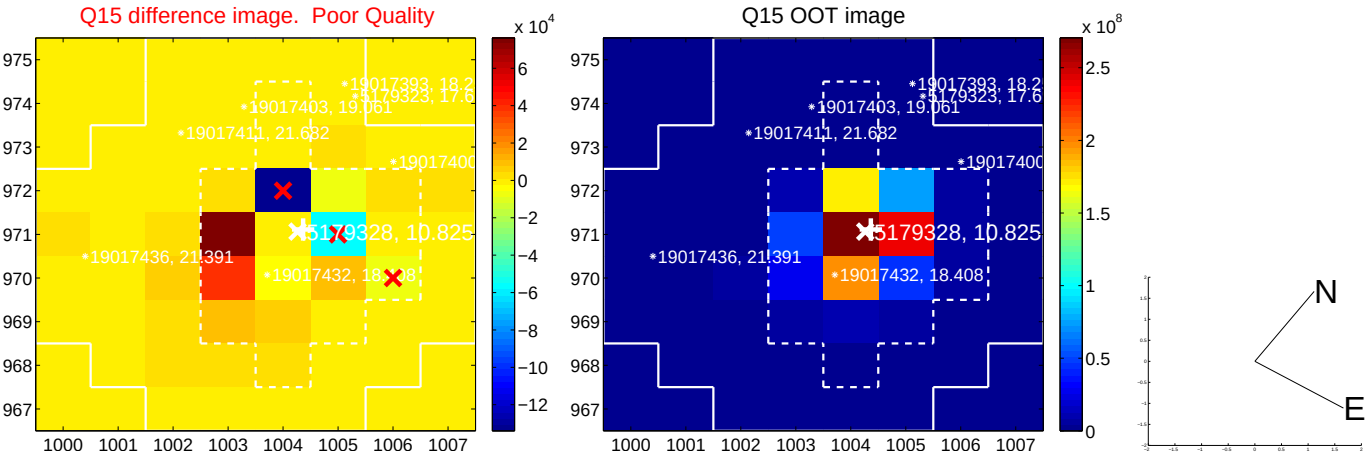


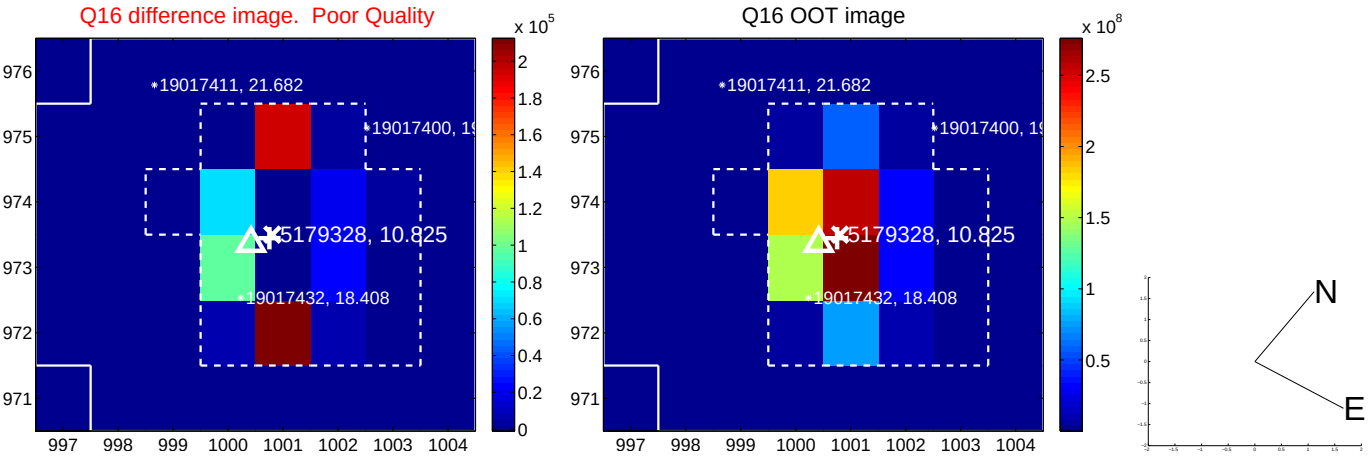


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.

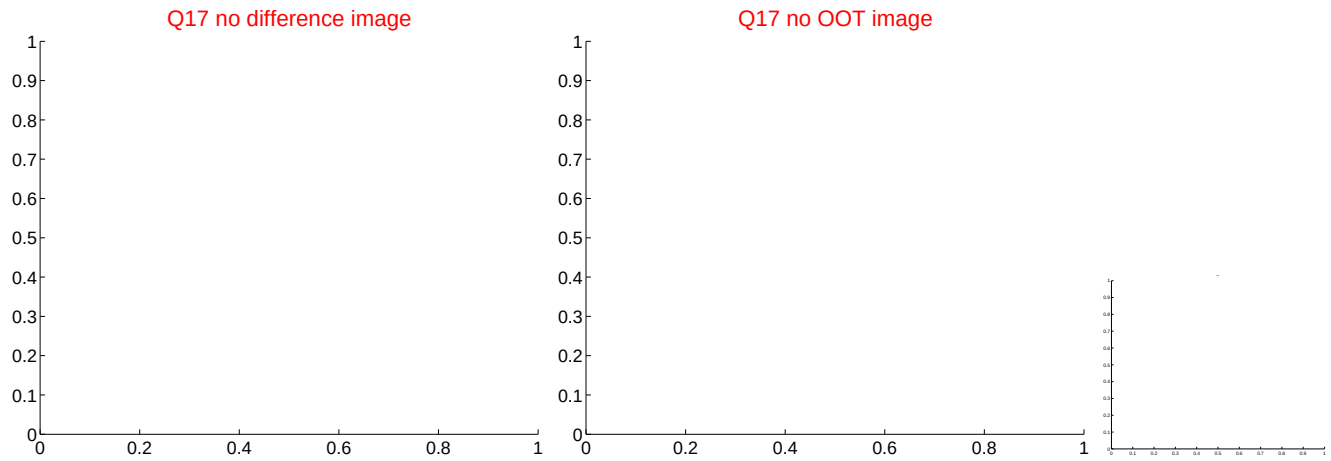


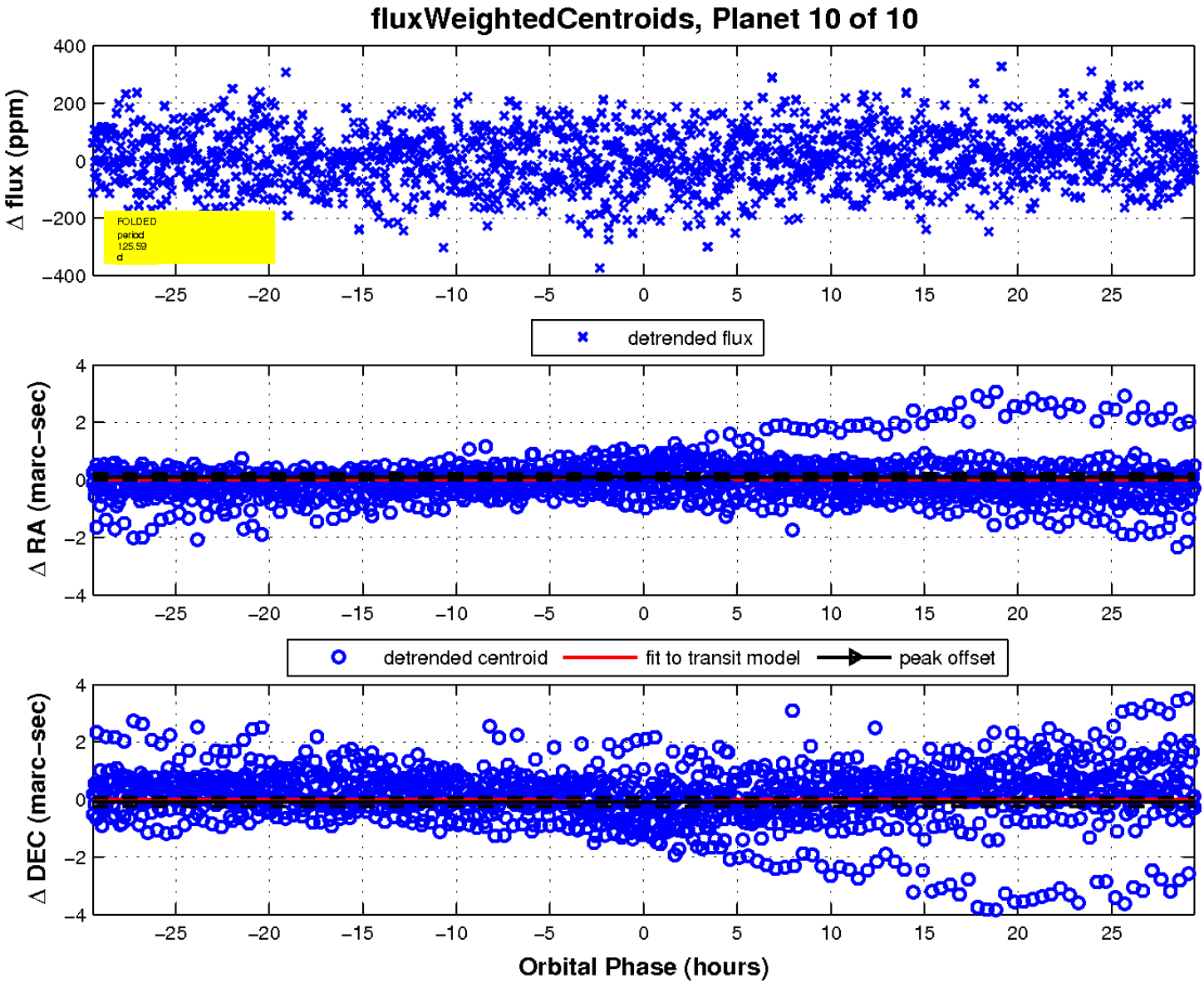




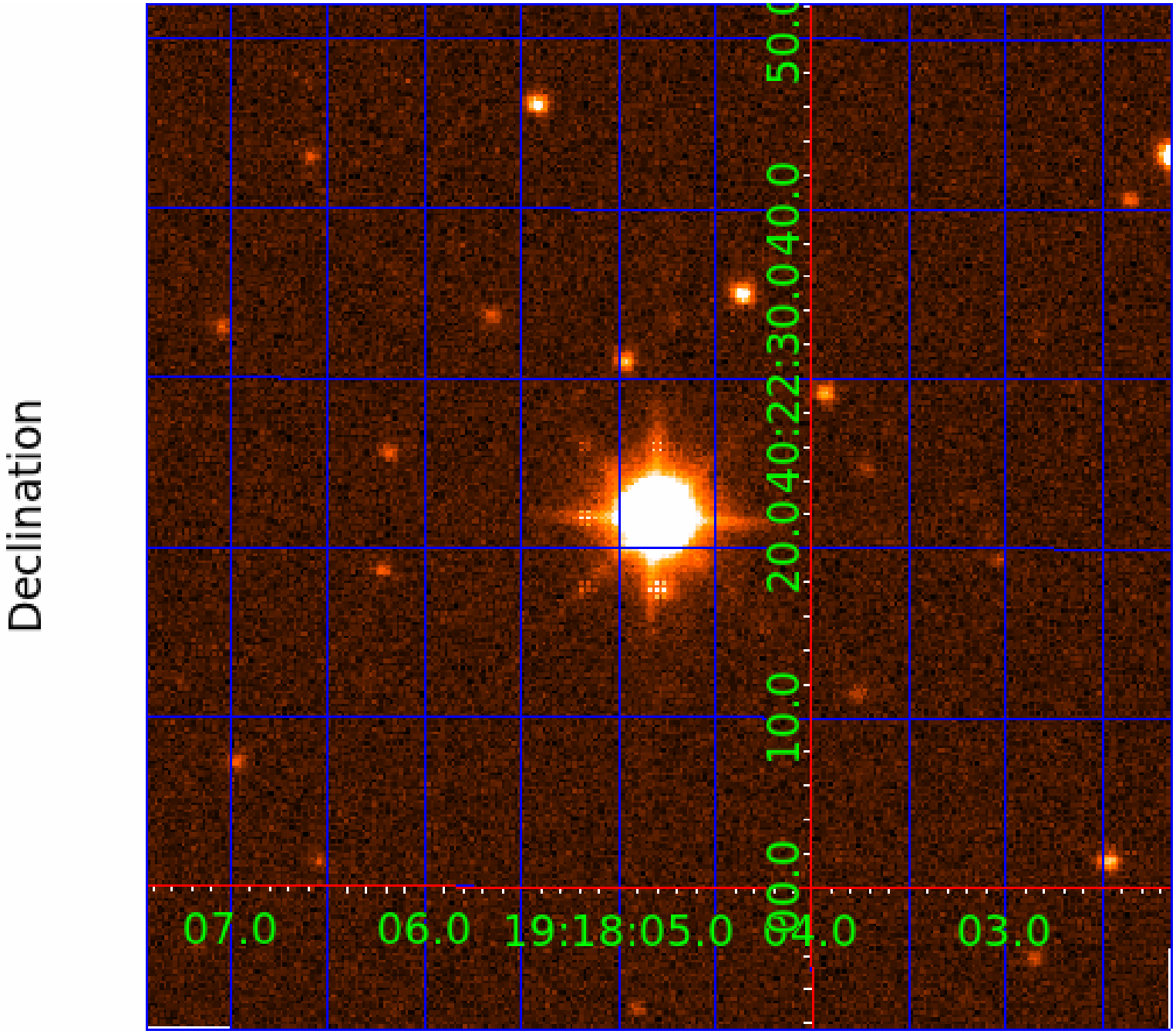


white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.





UKIRT Image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