

KIC 010328476

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})
010328476-01	OBS	No	3.173124	133.893882	28.0	12.358	9.8	5.6	1.53	7270	0.94	2544.48
010328476-02	OBS	No	3.171969	131.749424	0.0	11.066	10.1	0.0	1.53	7270	0.00	2545.72
010328476-03	OBS	No	104.873442	141.715761	514.2	41.836	15.6	7.5	1.53	7270	4.43	23.99
010328476-05	OBS	No	216.101813	175.647312	392.8	13.258	9.3	7.9	1.53	7270	3.43	9.15
010328476-06	OBS	No	0.528827	131.617899	37.6	5.896	8.2	13.5	1.53	7270	0.95	27743.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010328476-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV
010328476-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—SAME_NTL_PERIOD
010328476-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—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_FEW_DIFFS—HALO_GHOST
010328476-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
010328476-06	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD—CENT_FEW_DIFFS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

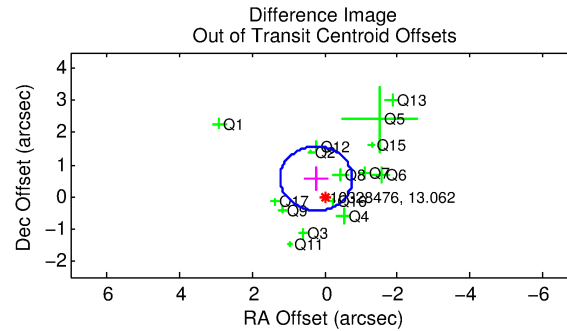
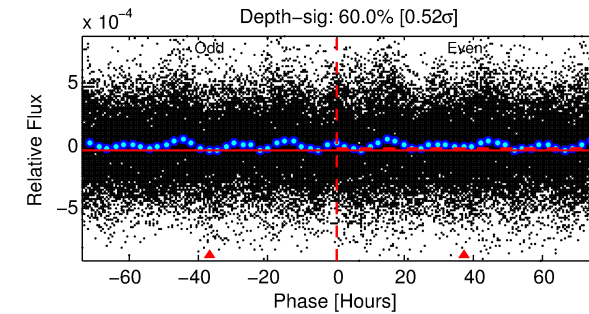
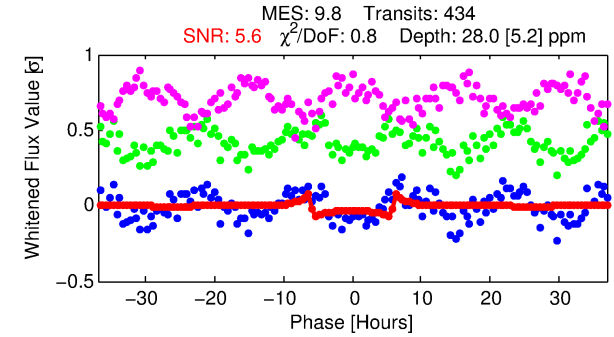
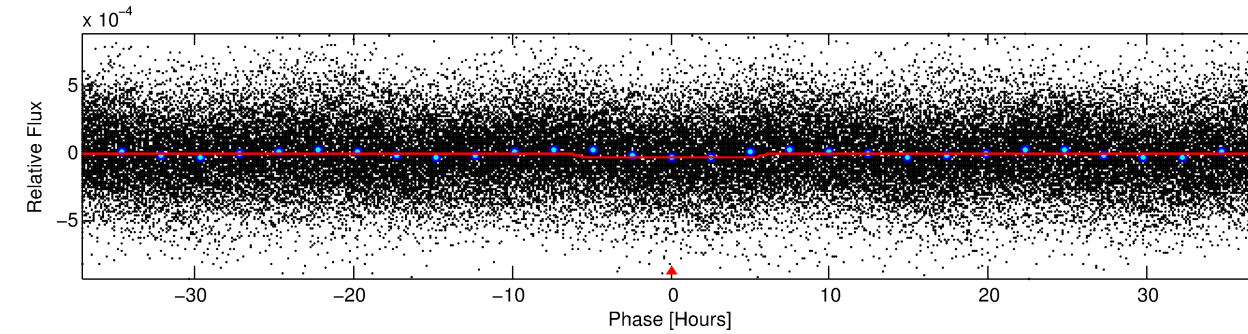
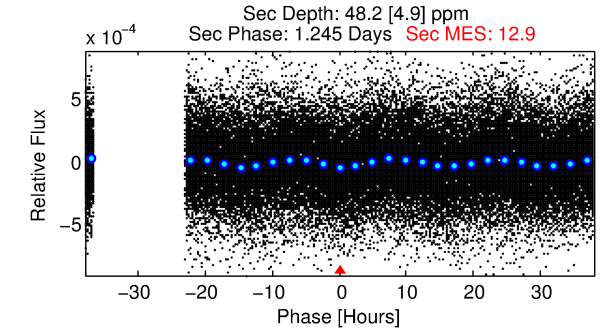
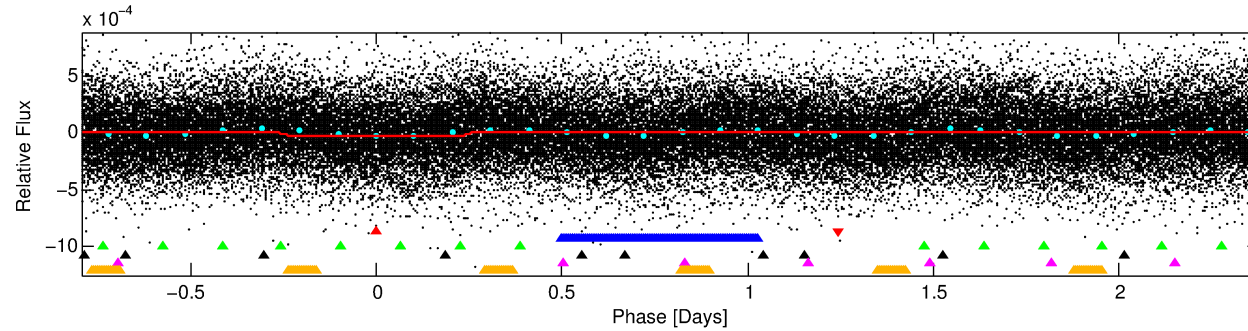
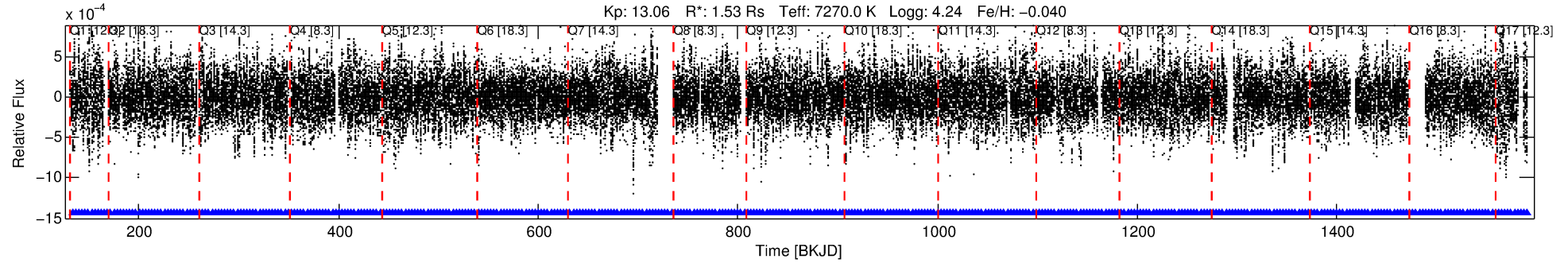
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010328476-01

No Significant Match Found

DV One-Page Summary

KIC: 10328476 Candidate: 1 of 6 Period: 3.173 d



DV Fit Results:

Period = 3.17312 [0.00004] d
Epoch = 133.8939 [0.0063] BKJD
Rp/R* = 0.0056 [0.0009]
a/R* = 1.31 [0.41]
b = 0.89 [0.17]
Seff = 2544.48 [1104.45]
Teq = 1811 [197] K
Rp = 0.93 [0.36] Re
a = 0.0481 [0.0138] AU
Ag = 70.23 [36.54] [1.89σ]
Teffp = 8106 [753] K [8.08σ]

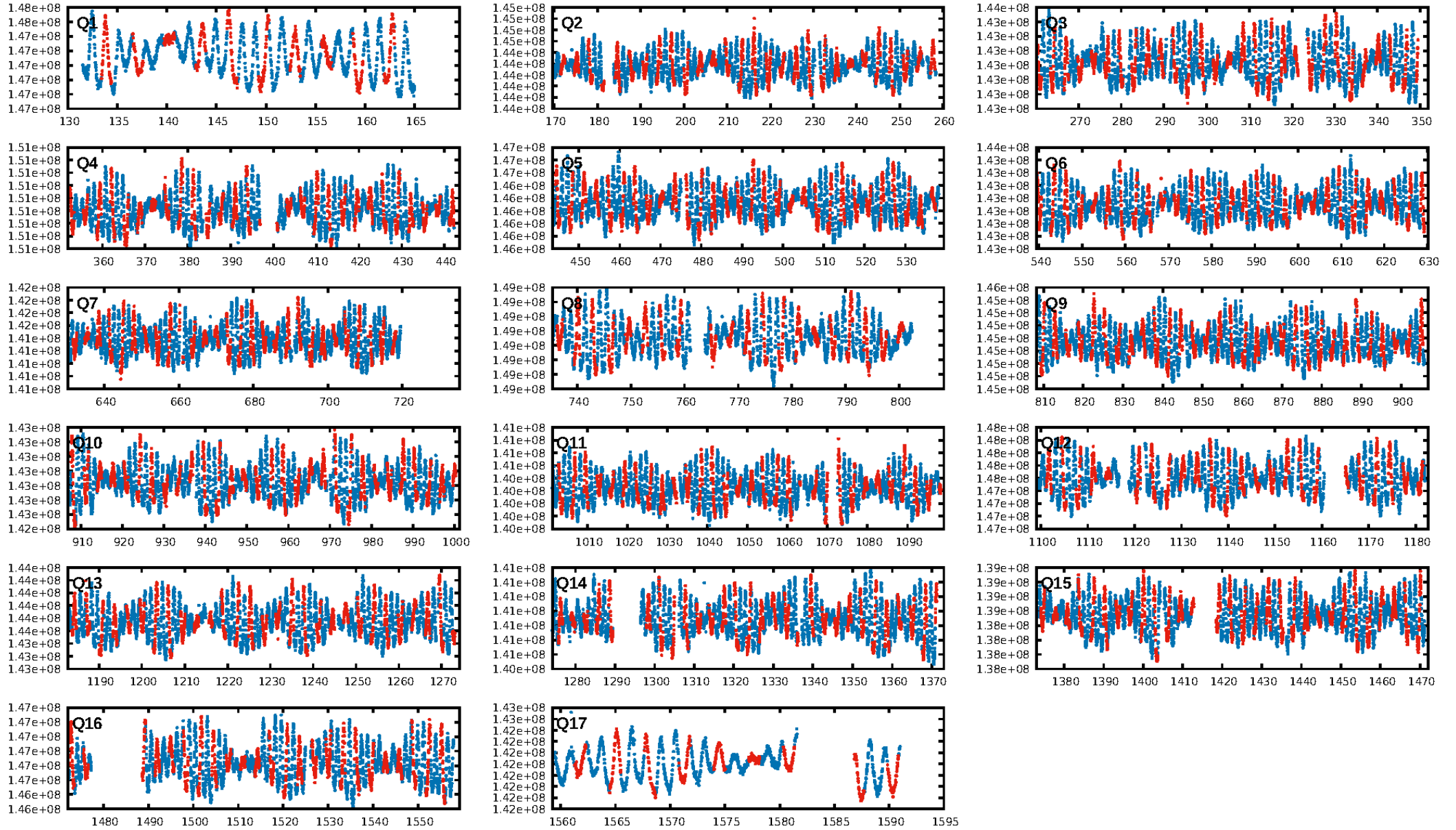
DV Diagnostic Results:

ShortPeriod-sig: 0.1% [0.00σ]
LongPeriod-sig: 100.0% [55.95σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [415/415]
GhostDiagnostic-chr: 2.516
Centroid-sig: 0.2%
Centroid-so: 1.417 arcsec [2.29σ]
OotOffset-rm: 0.615 arcsec [1.85σ]
KicOffset-rm: 0.615 arcsec [1.87σ]
OotOffset-st: 2/4/4/5 [15]
KicOffset-st: 2/4/4/5 [15]
DiffImageQuality-fgm: 0.40 [6/15]
DiffImageOverlap-fno: 0.00 [0/17]

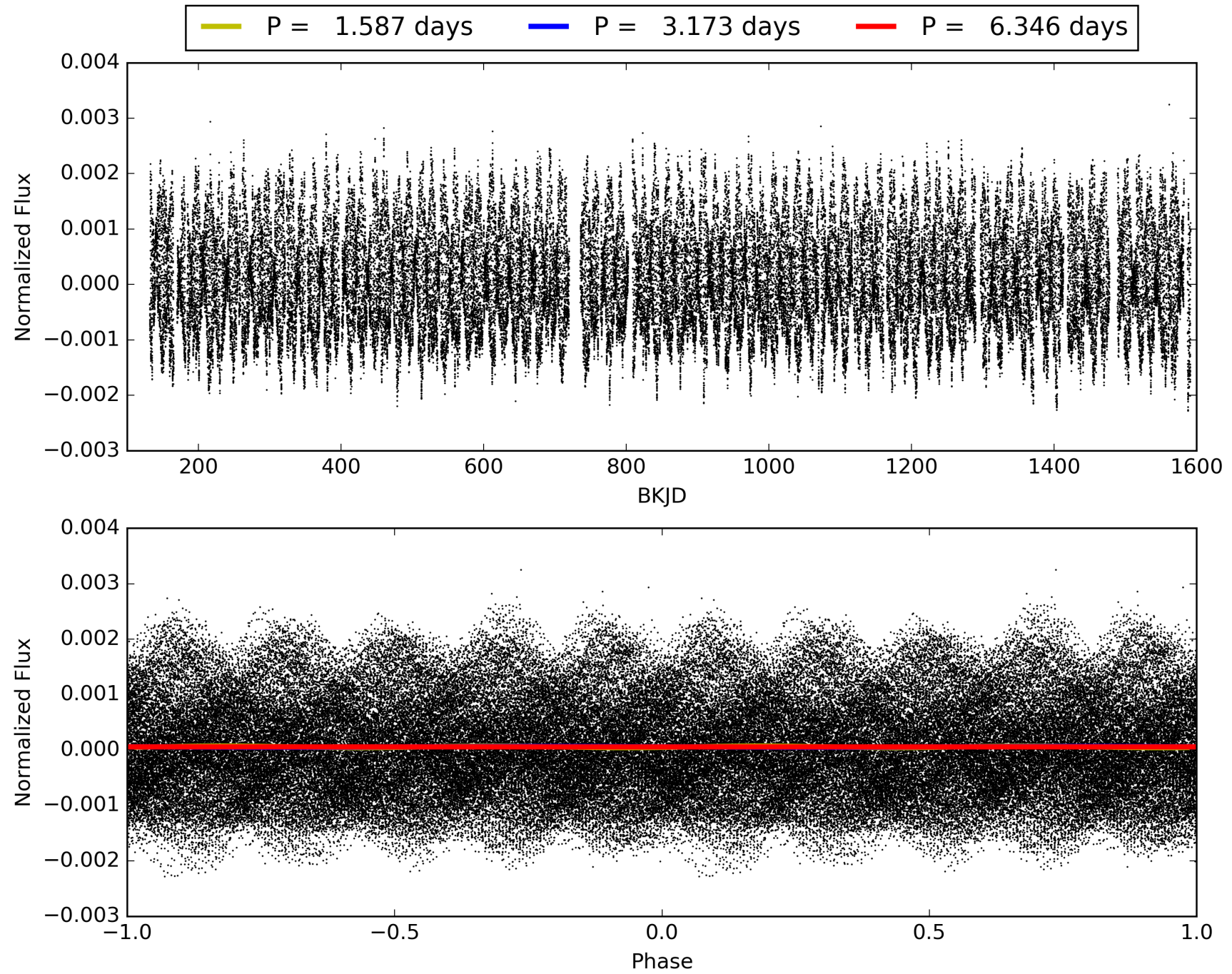
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 010328476-01, PDC Light Curves

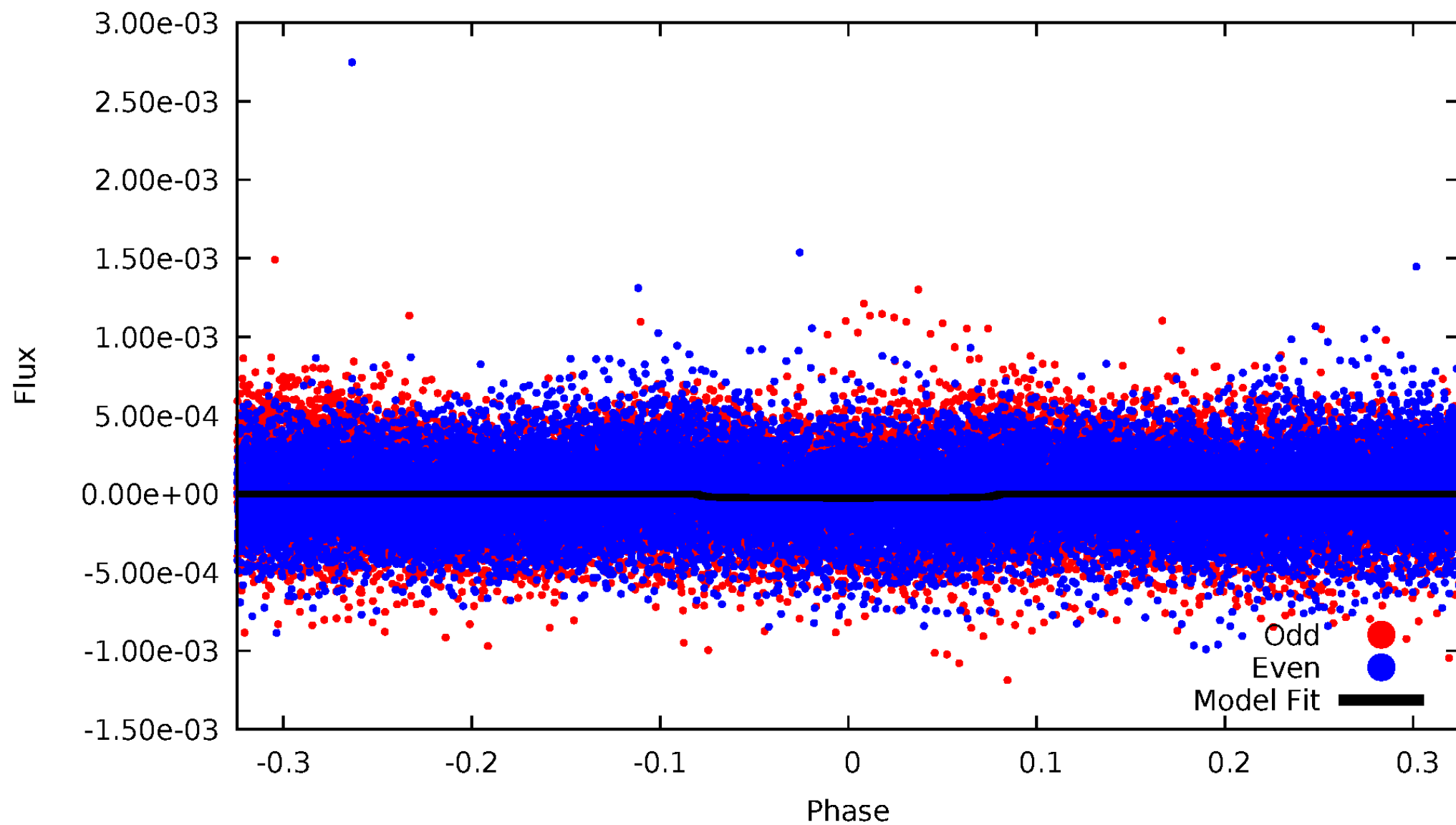


TCE 010328476-01



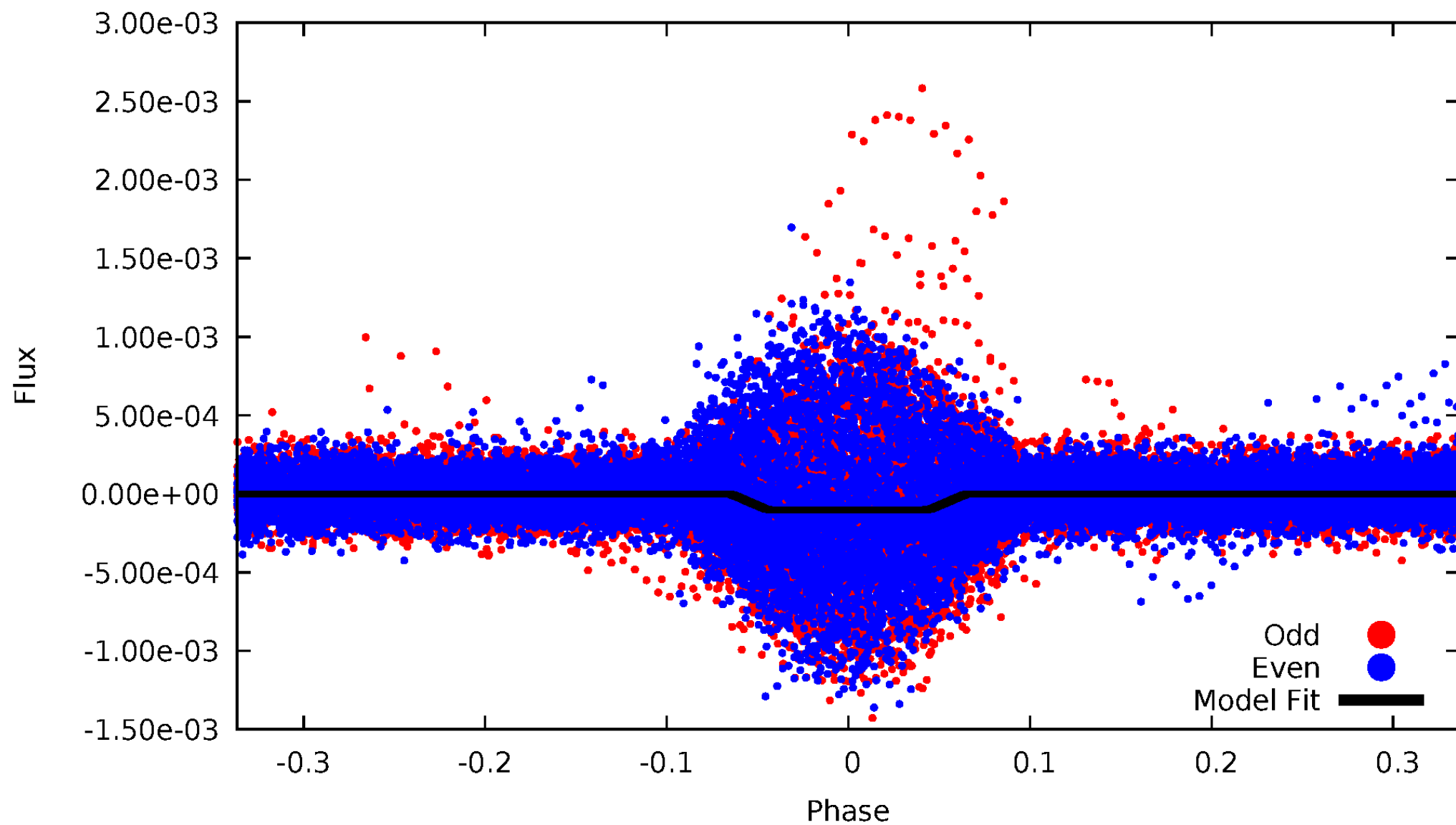
DV Odd/Even

TCE 010328476-01



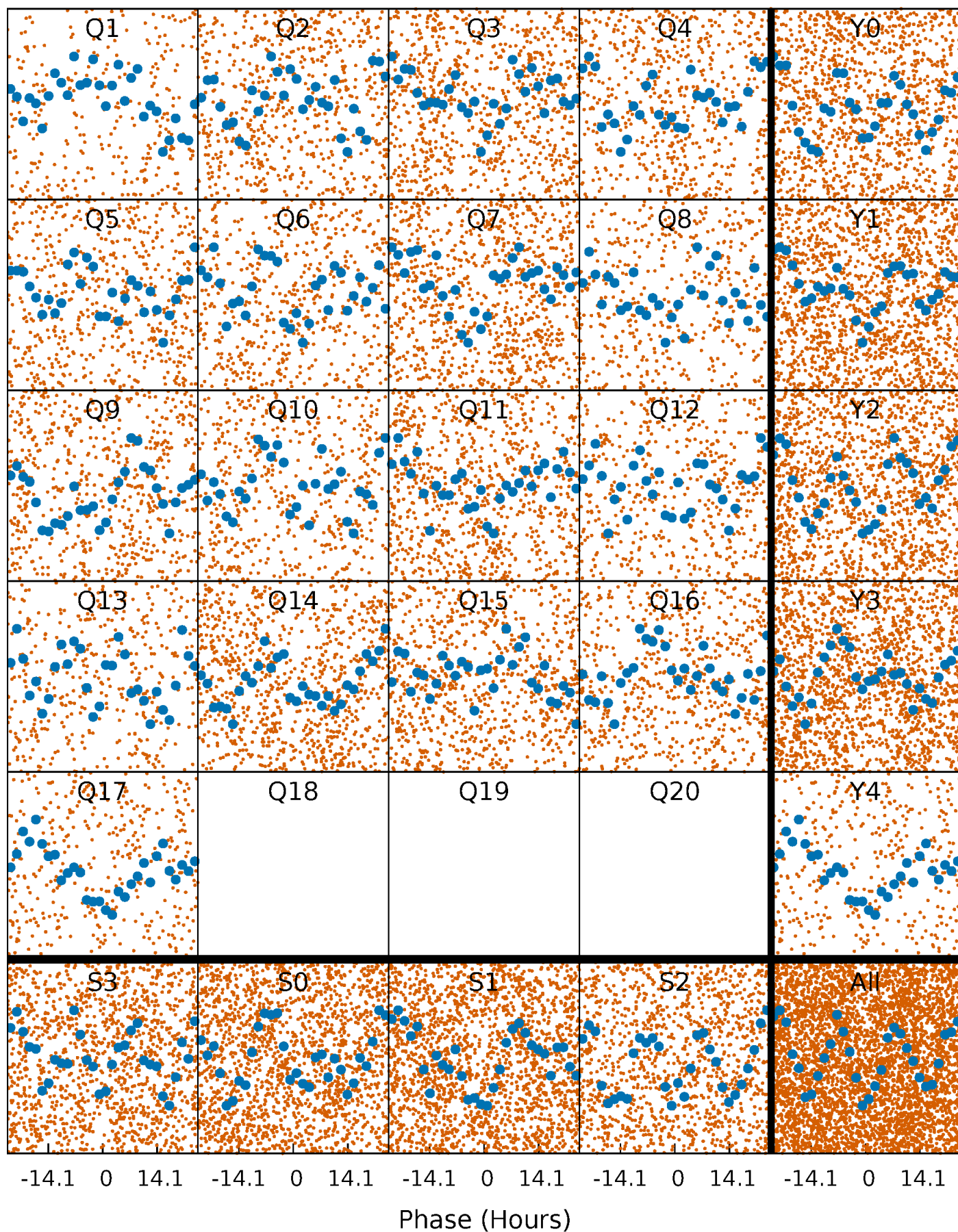
ALT Odd/Even

TCE 010328476-01



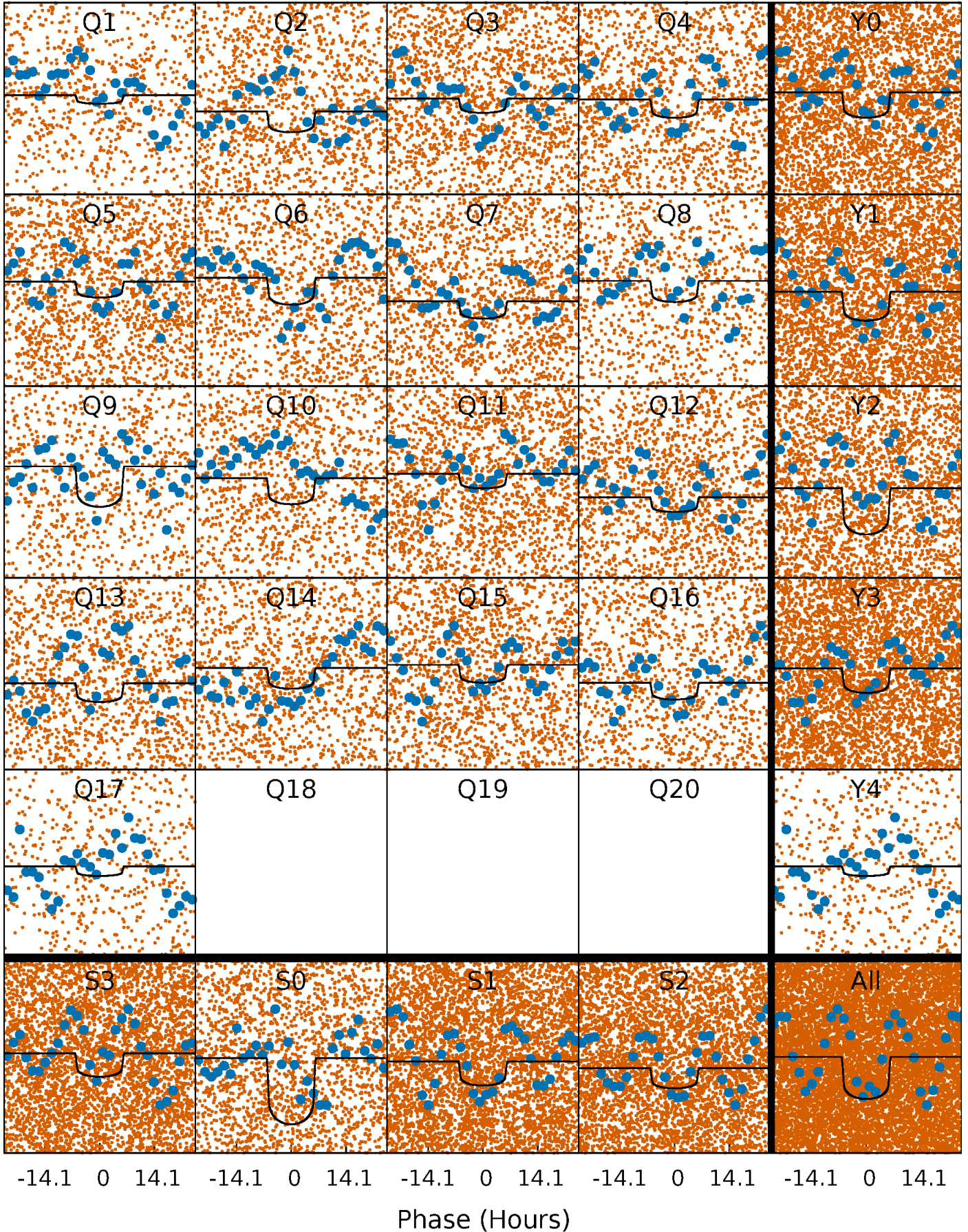
PDC Quarter-Phased Transit Curves

TCE 010328476-01 P= 3.173124 Days $T_0=133.893882$ (BKJD)



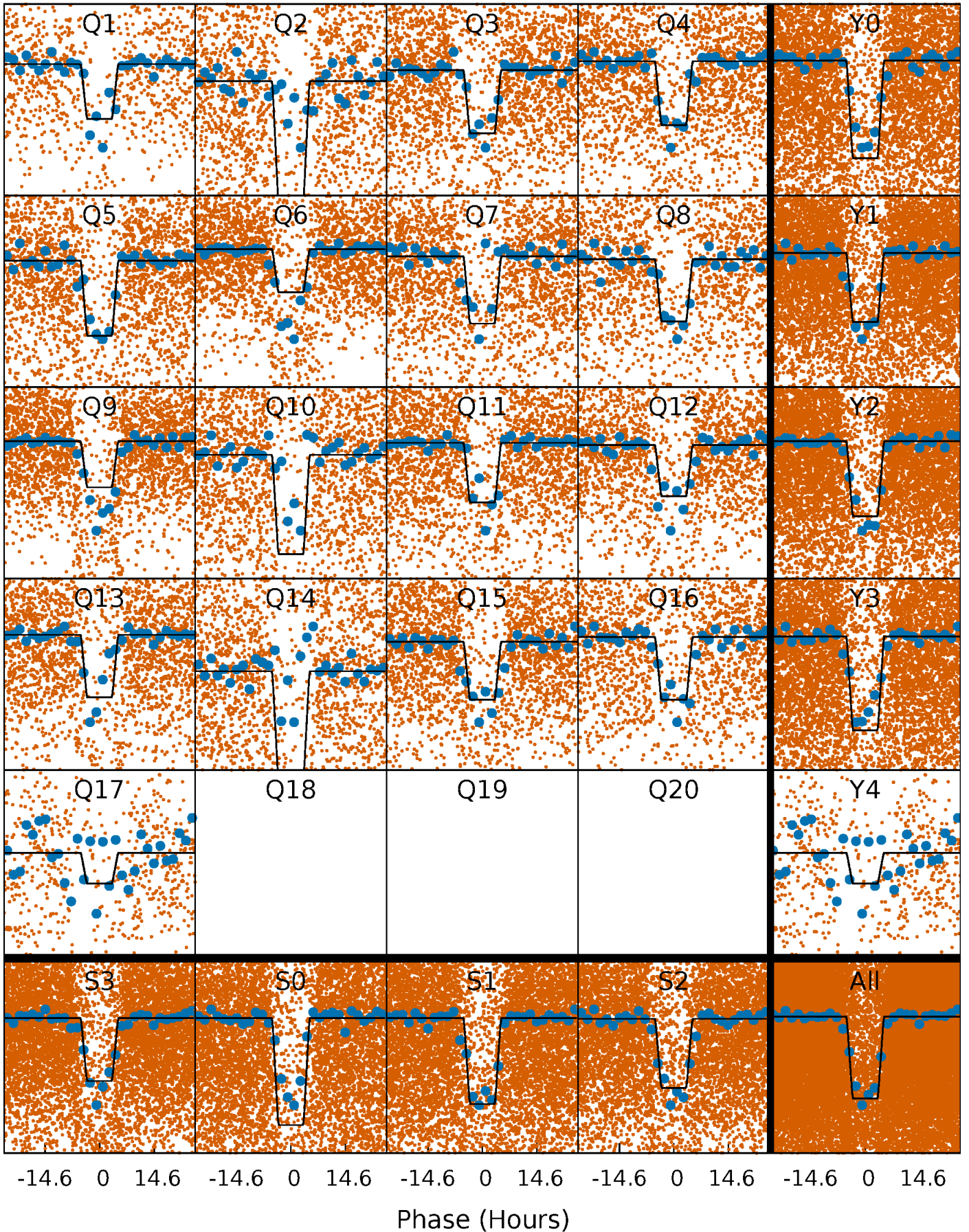
DV Quarter-Phased Transit Curves

TCE 010328476-01 P= 3.173124 Days $T_0=133.893882$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

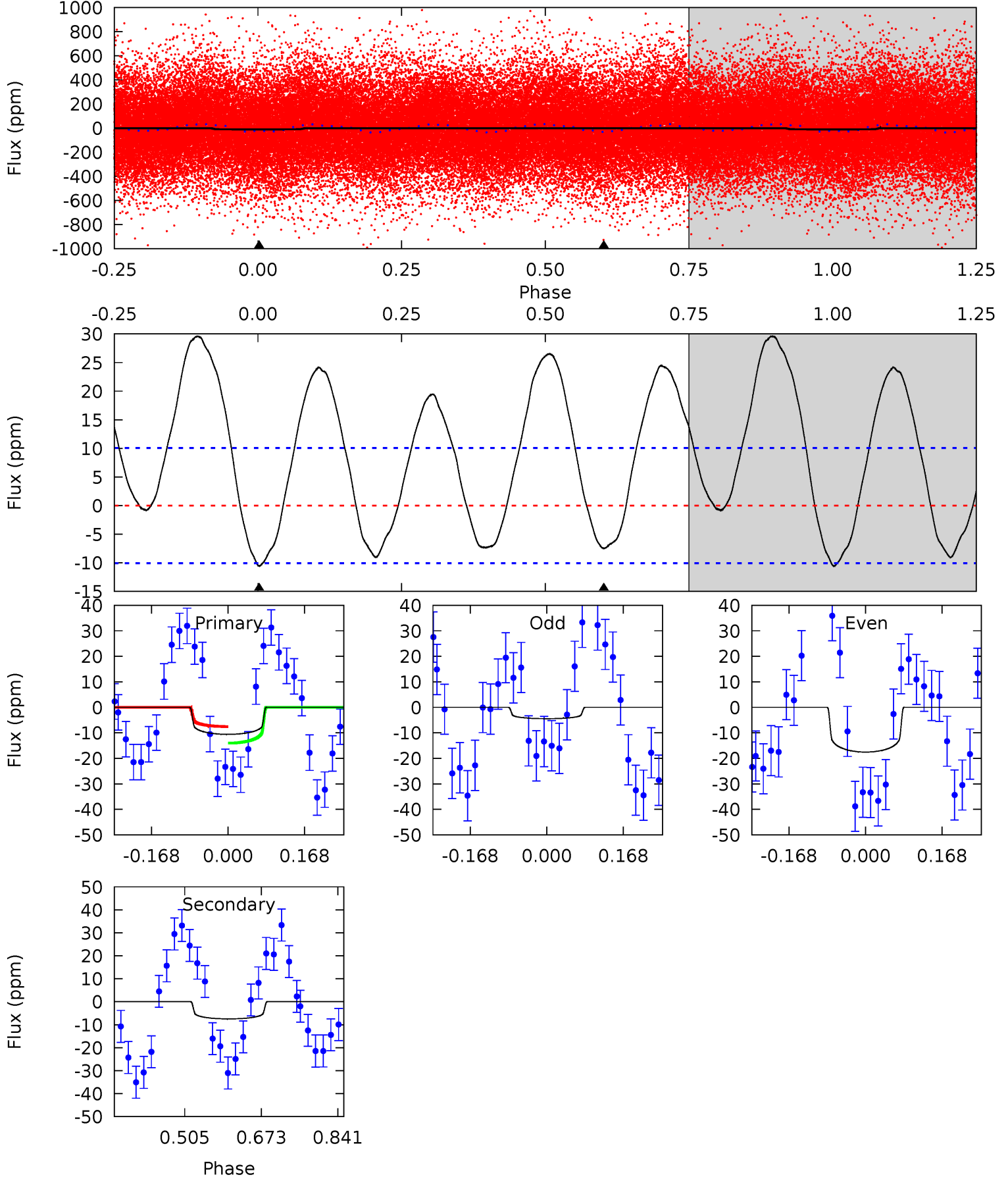
TCE 010328476-01 P= 3.173058 Days $T_0=133.913149$ (BKJD)



DV Model-Shift Uniqueness Test

010328476-01, P = 3.173124 Days, E = 130.720758 Days

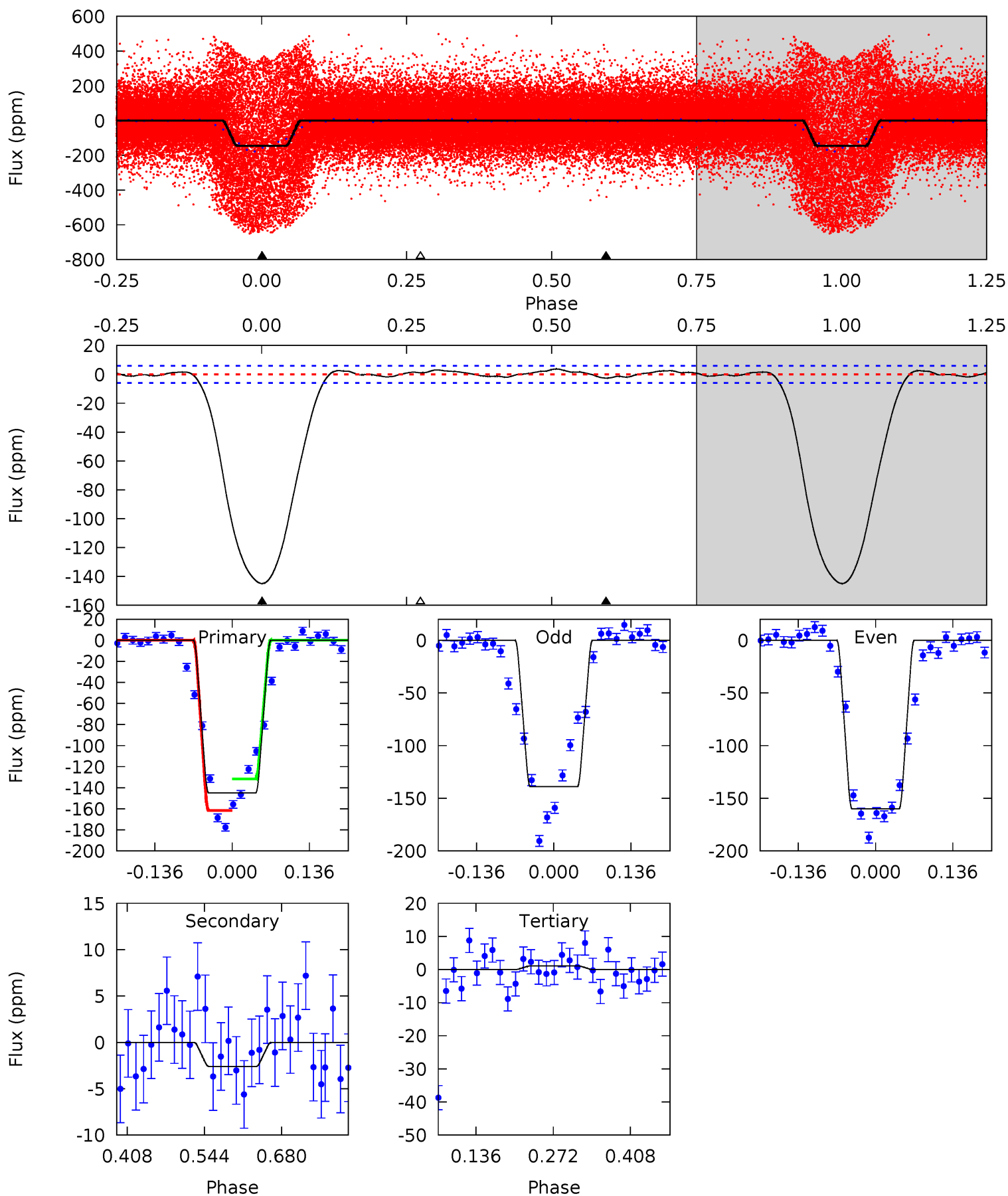
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.69	3.31	0	0	4.45	1.38	3.78	4.69	4.69	3.31	3.31	2.96	0.64	0.74	1.43



Alt Model-Shift Uniqueness Test

010328476-01, P = 3.173058 Days, E = 130.740091 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
110.7	1.99	-0.84	0	4.50	1.49	1.01	111.5	110.7	2.83	1.99	7.97	0.63	0.03	11.3



Stellar Parameters For KIC 010328476

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7270^{+228}_{-304}	$4.235^{+0.090}_{-0.210}$	$-0.040^{+0.200}_{-0.350}$	$1.534^{+0.547}_{-0.235}$	$1.471^{+0.219}_{-0.197}$	$0.574^{+0.228}_{-0.309}$
	+3%/-4%	+2%/-5%	+500%/-875%	+36%/-15%	+15%/-13%	+40%/-54%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 010328476-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-7 ± 2	$0.97^{+0.23}_{-0.18}$	2574^{+212}_{-161}	5033^{+523}_{-479}	$9.681^{+6.296}_{-3.919}$
Alt.	-3 ± 1	$1.74^{+0.32}_{-0.22}$	2558^{+215}_{-154}	3208^{+301}_{-534}	$1.024^{+0.659}_{-0.546}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

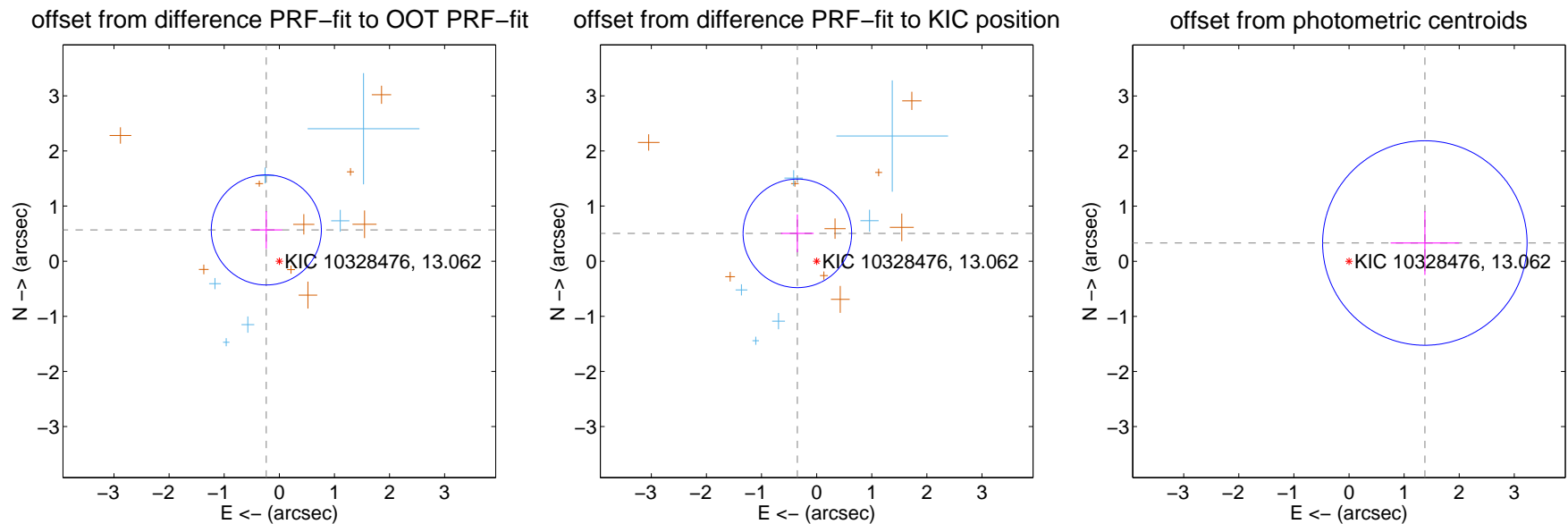
DV Centroid Data

Supplemental centroid analysis for 010328476-01. Kepler magnitude: 13.06. Transit SNR 5.56

There are 6 quarters with good PRF difference image offsets

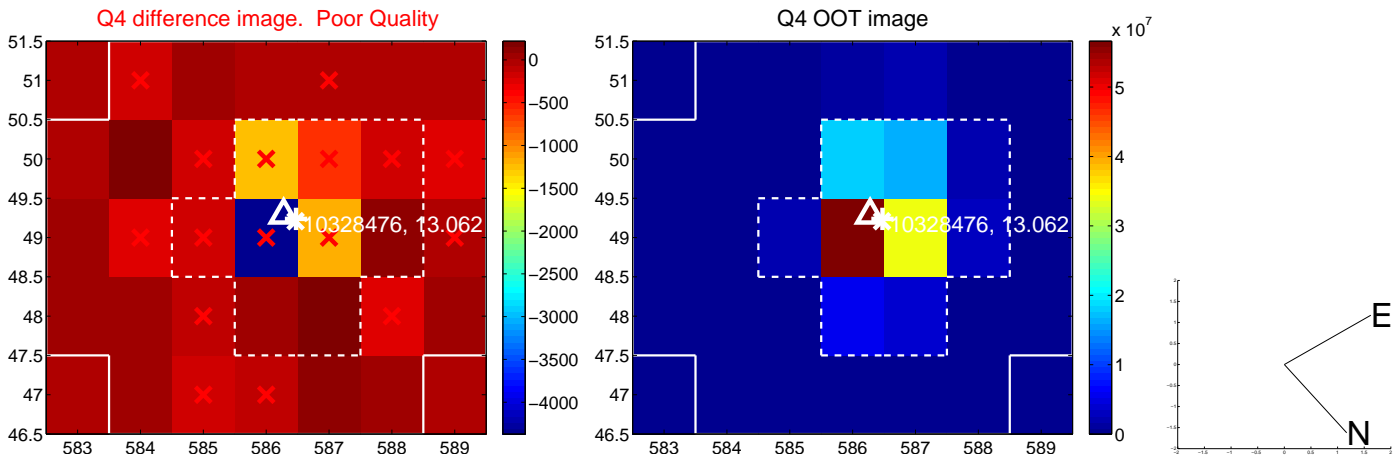
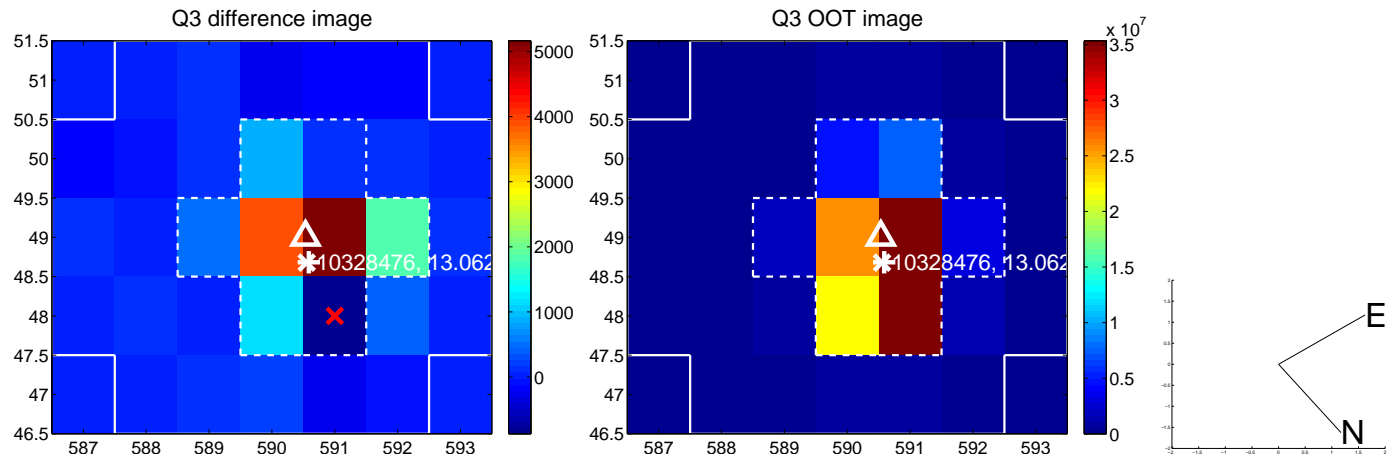
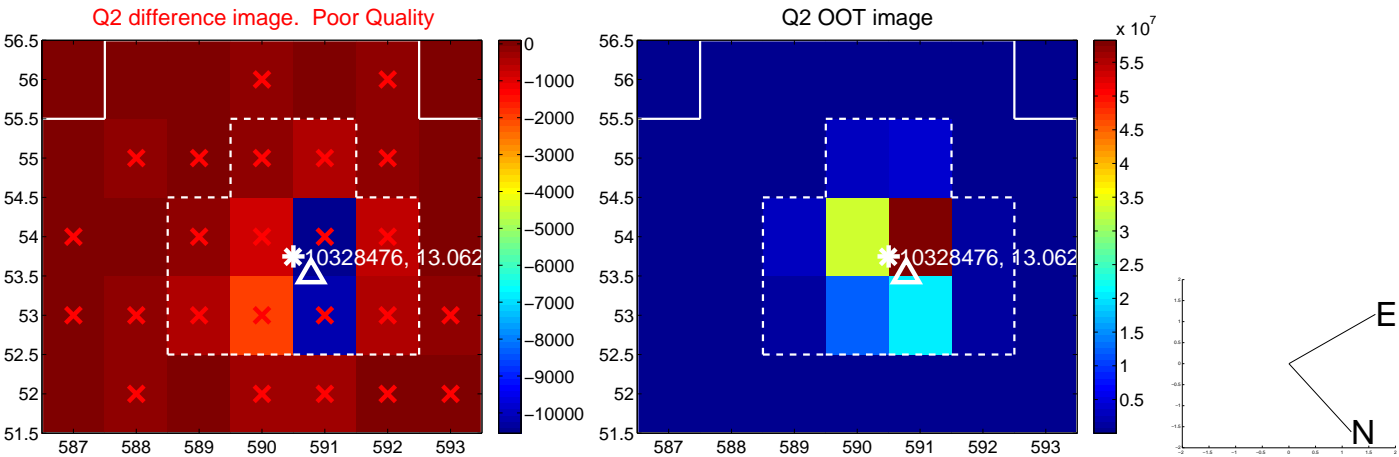
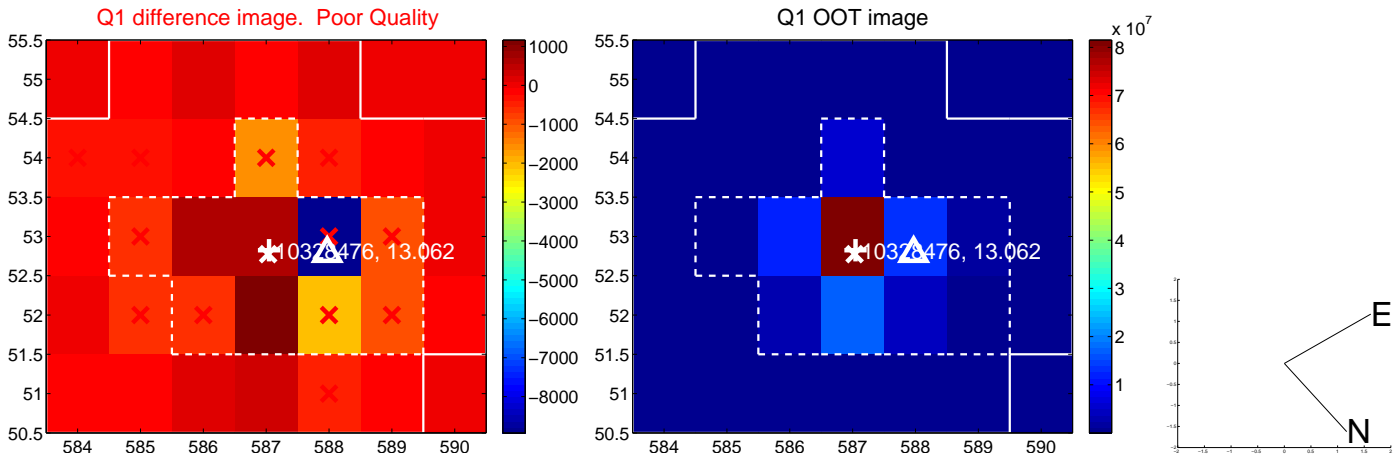
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.615 ± 0.333	1.85	0.236 ± 0.288	0.568 ± 0.340
PRF-fit source offset from KIC position	0.615 ± 0.328	1.87	0.350 ± 0.296	0.505 ± 0.343
photometric centroid source offset	1.42 ± 0.62	2.29	-1.38 ± 0.62	0.33 ± 0.58

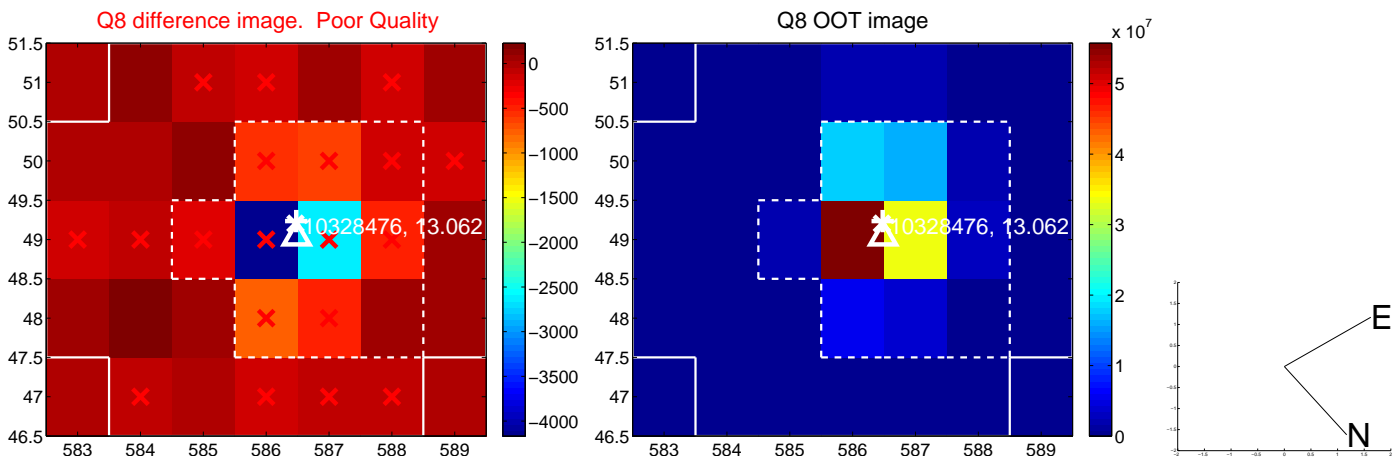
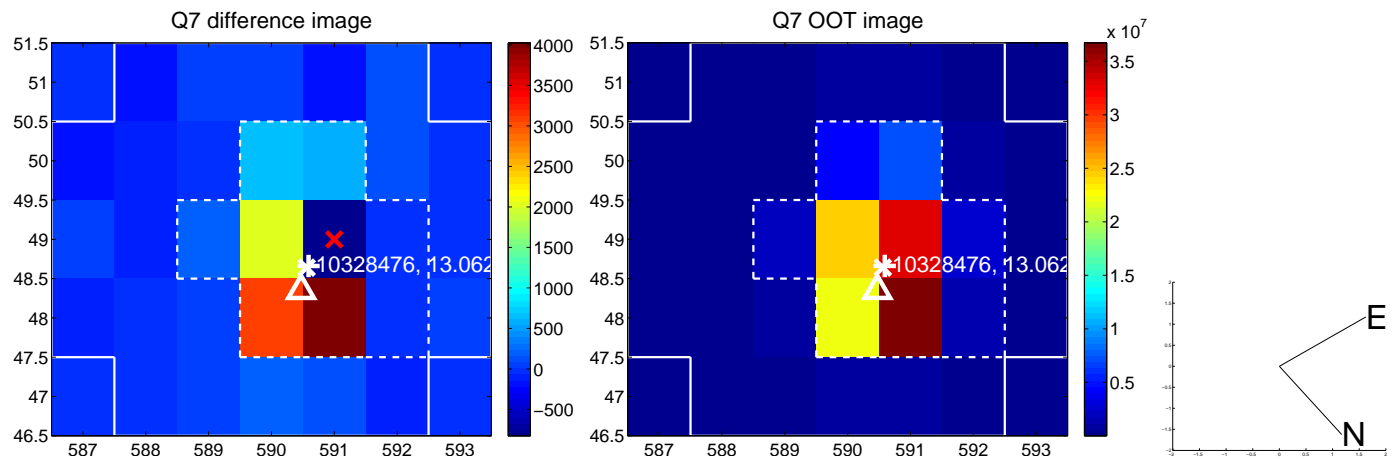
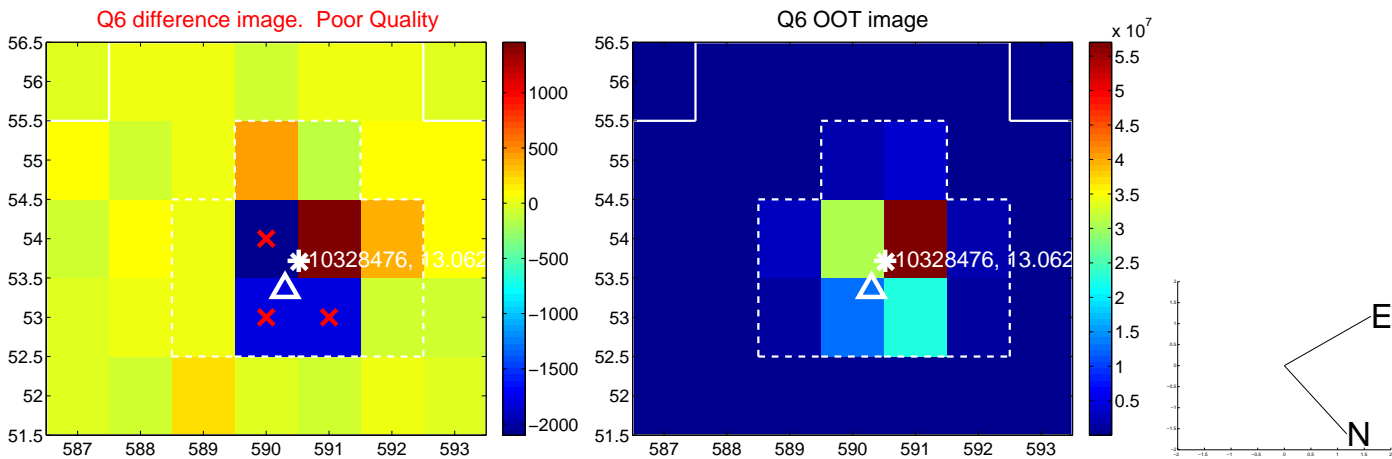
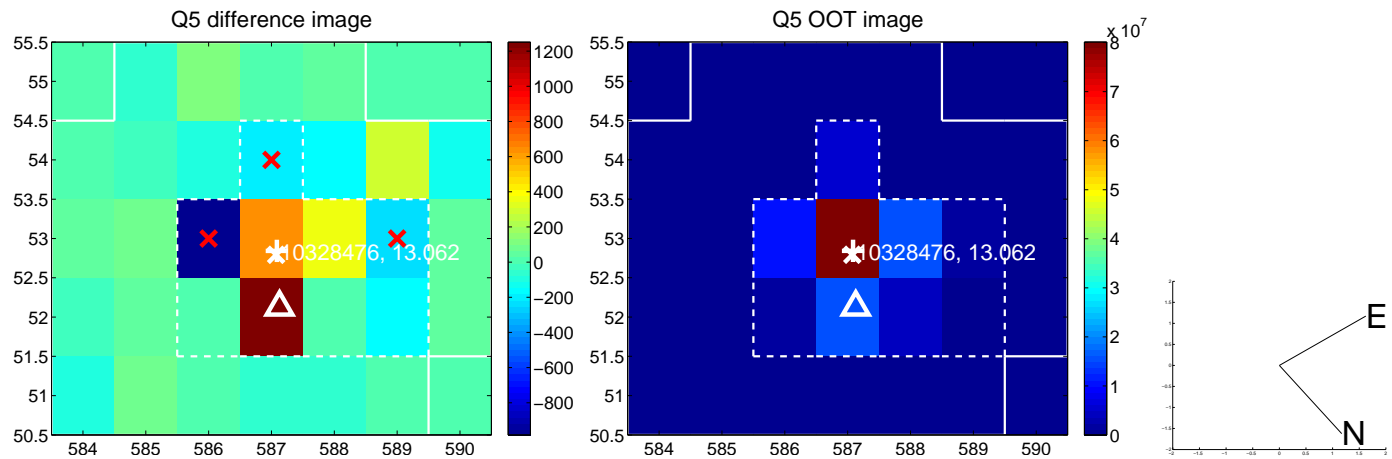


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

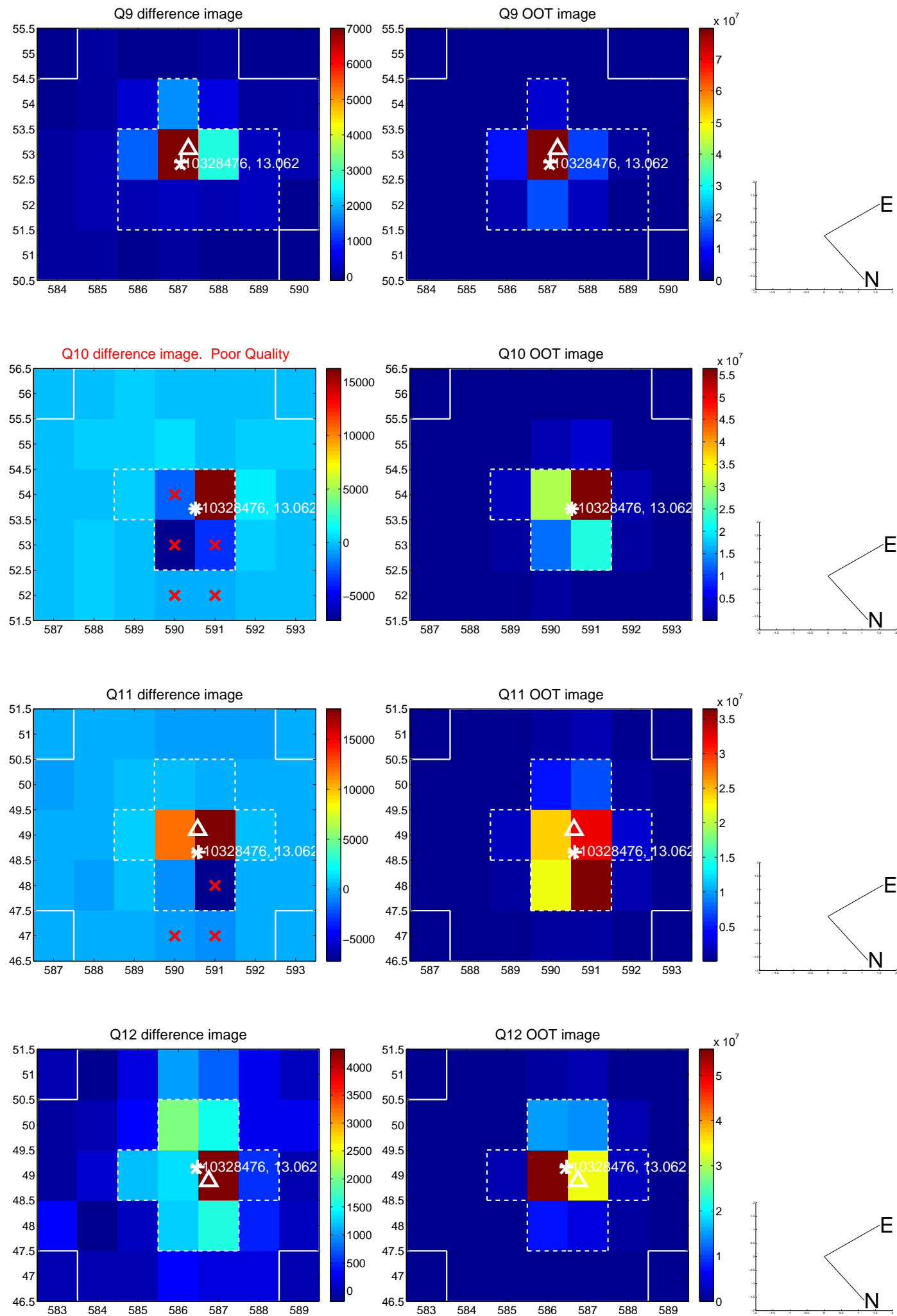
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



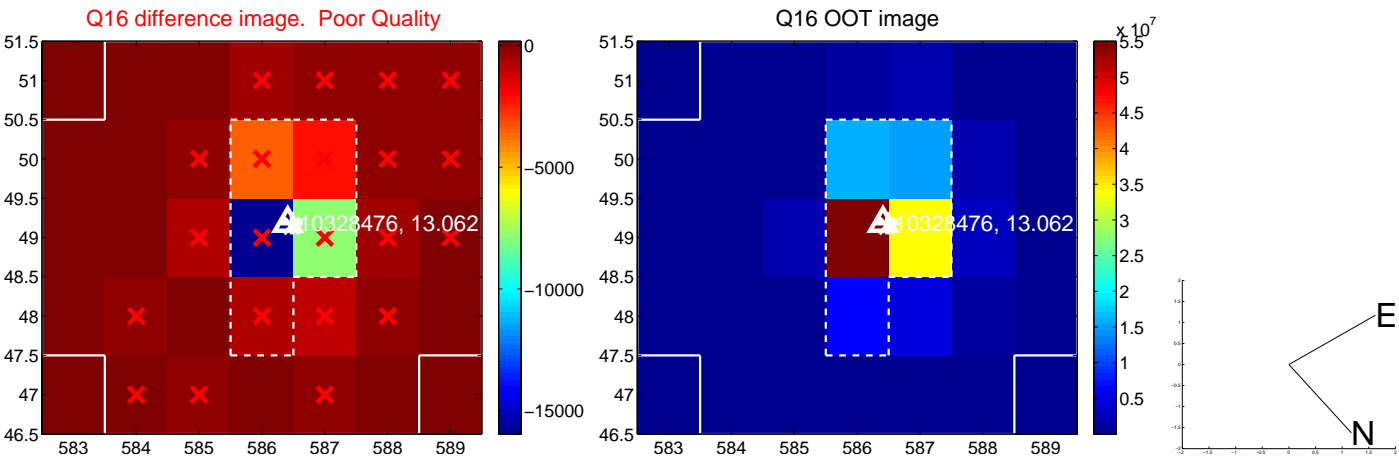
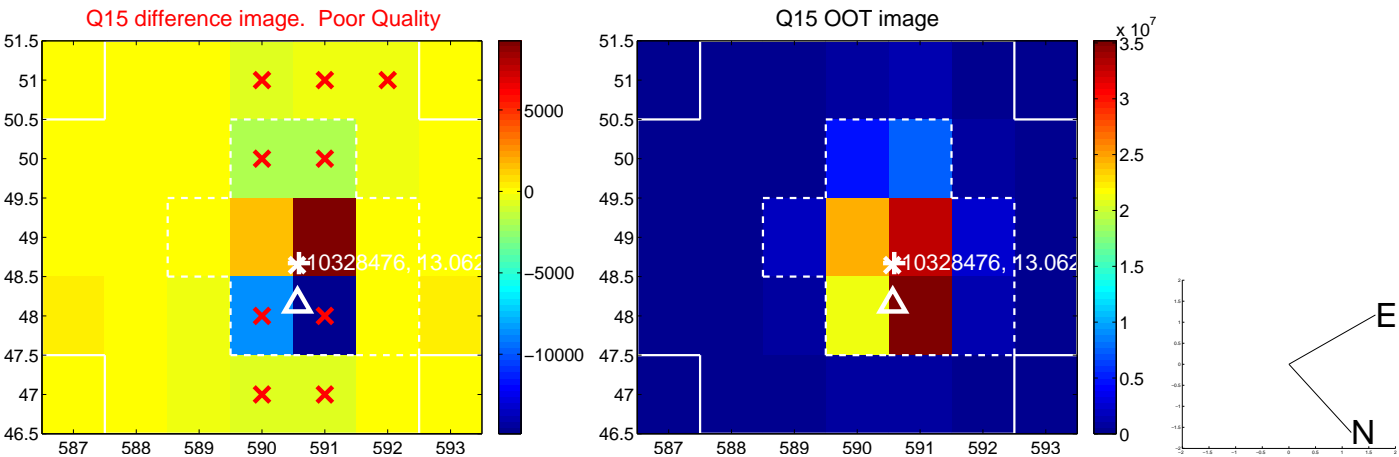
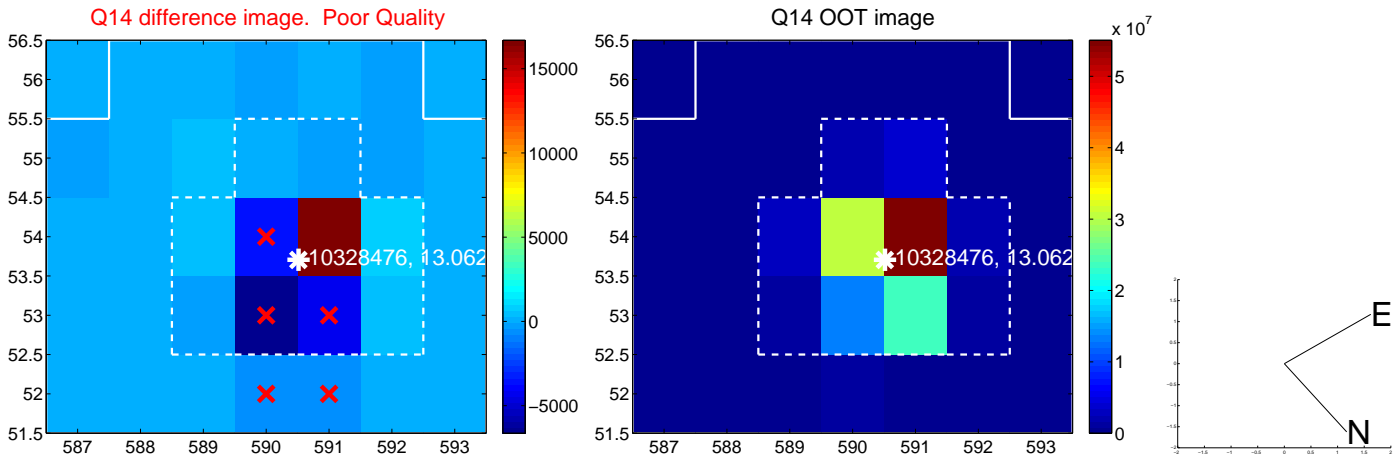
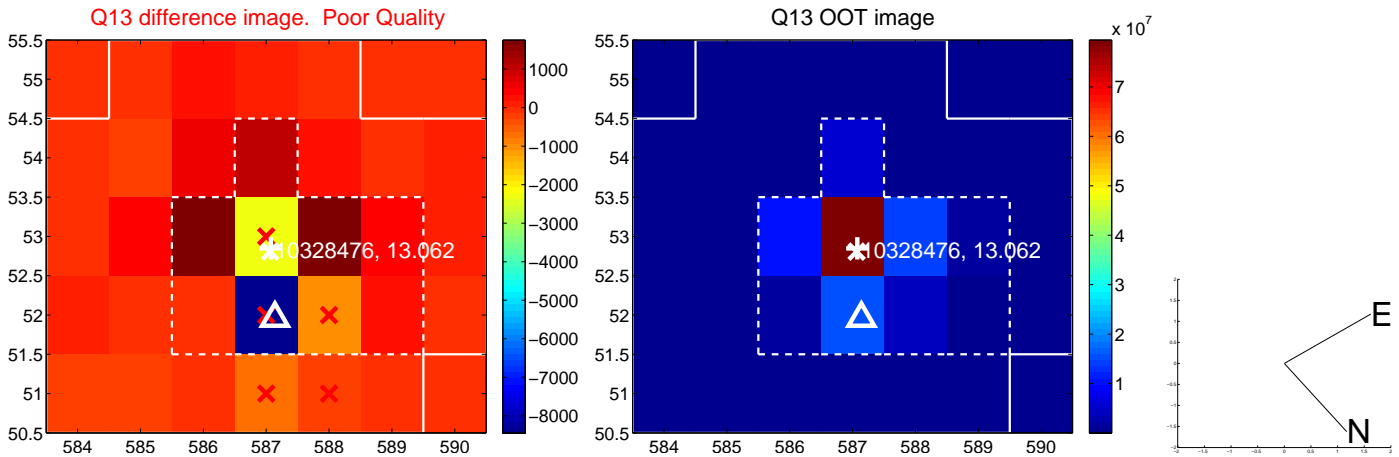
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

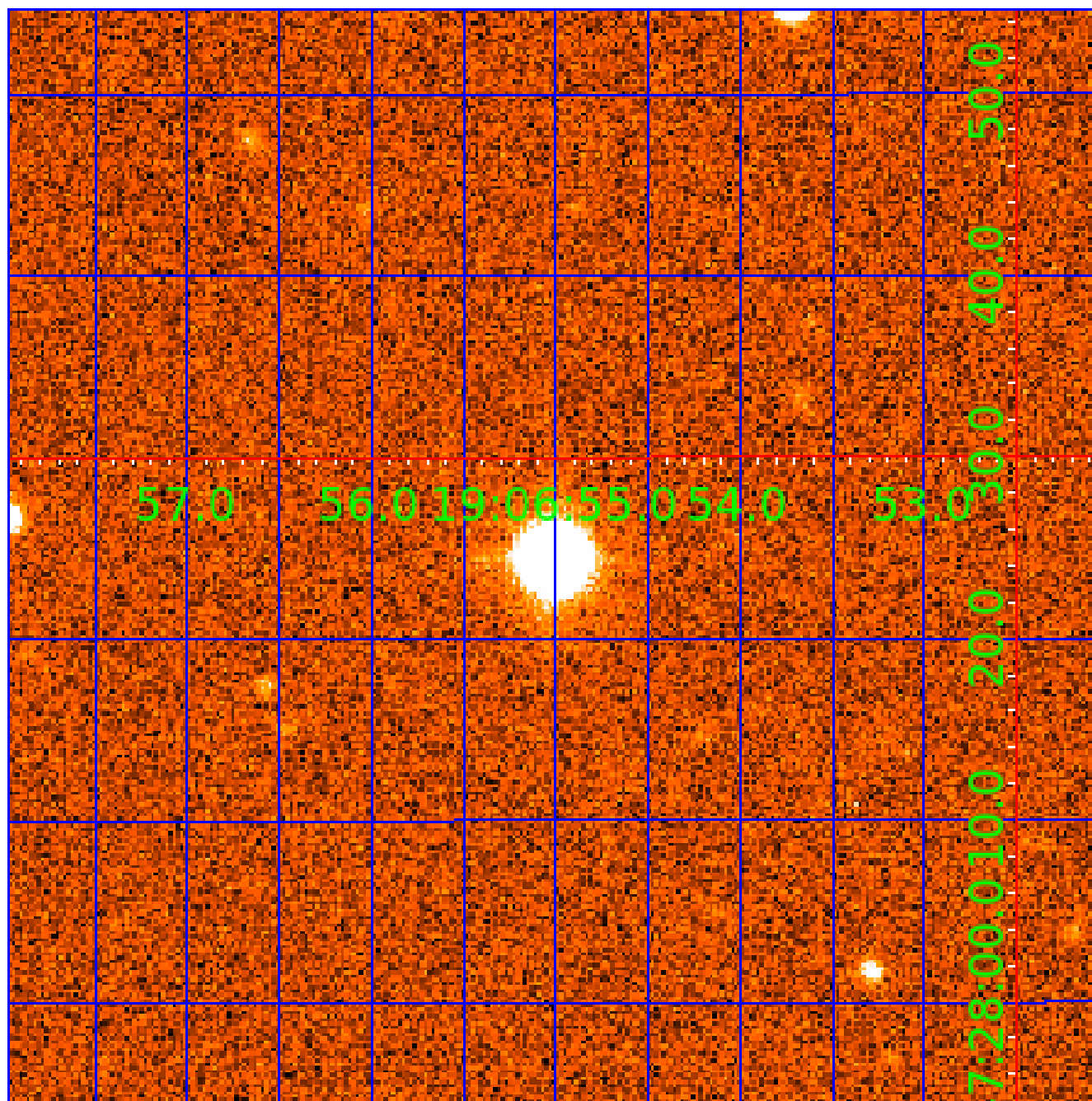


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010328476

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})
010328476-01	OBS	No	3.173124	133.893882	28.0	12.358	9.8	5.6	1.53	7270	0.94	2544.48
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010328476-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV
010328476-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—SAME_NTL_PERIOD
010328476-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—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_FEW_DIFFS—HALO_GHOST
010328476-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
010328476-06	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD—CENT_FEW_DIFFS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

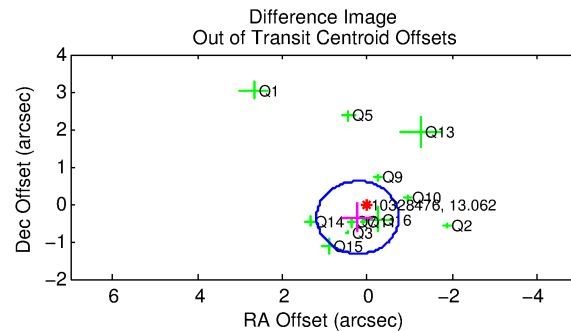
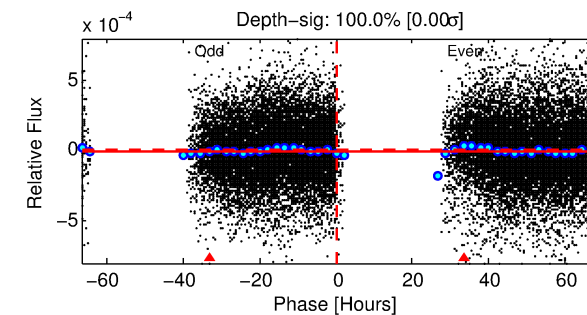
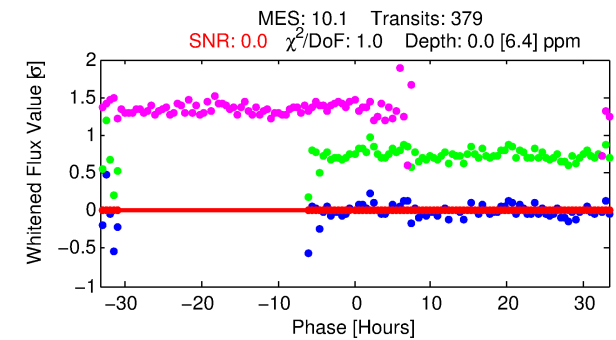
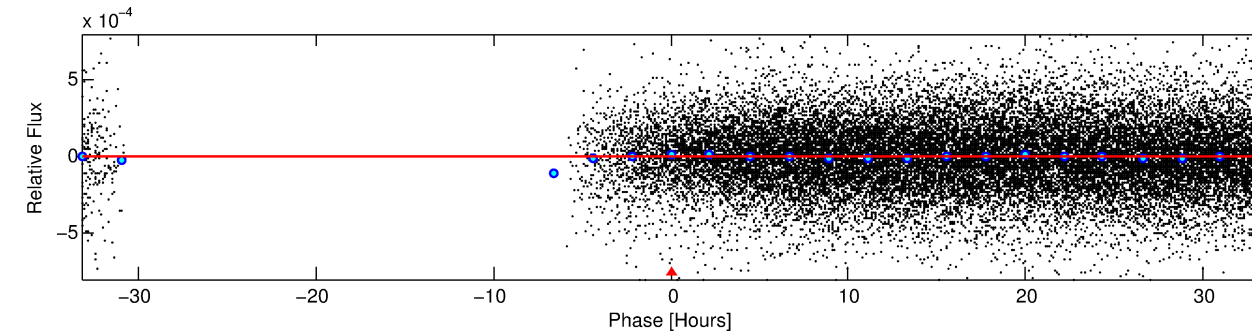
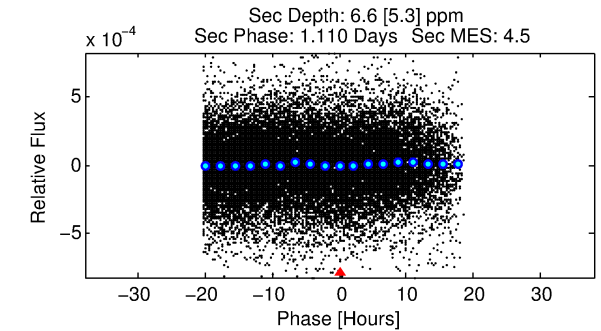
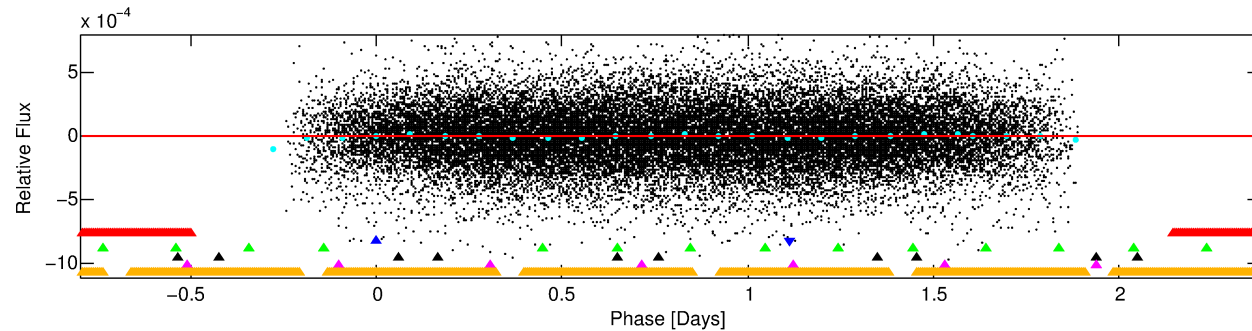
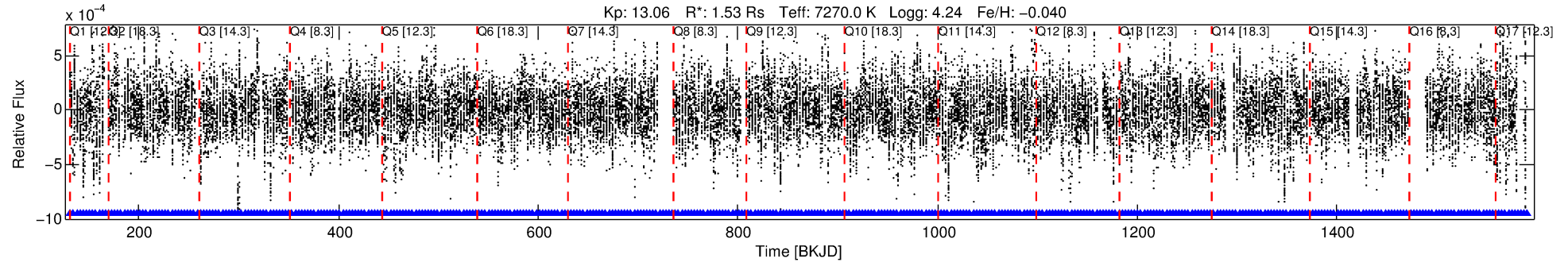
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010328476-02

No Significant Match Found

DV One-Page Summary

KIC: 10328476 Candidate: 2 of 6 Period: 3.172 d



DV Fit Results:

Period = 3.17197 [4324.85285] d
Epoch = 131.7494 [815657.0360] BKJ
Rp/R* = 0.0000 [5.8579]
a/R* = 1.43 [120964.80]
b = 0.86 [603576.53]
Seff = 2545.72 [4627980.88]
Teq = 1811 [823190] K
Rp = 0.00 [980.57] Re
a = 0.0481 [43.7204] AU
Ag = 867040910.85 [17228746434129370.00] 10.00d
Teff = 480540 [2387223142619] K

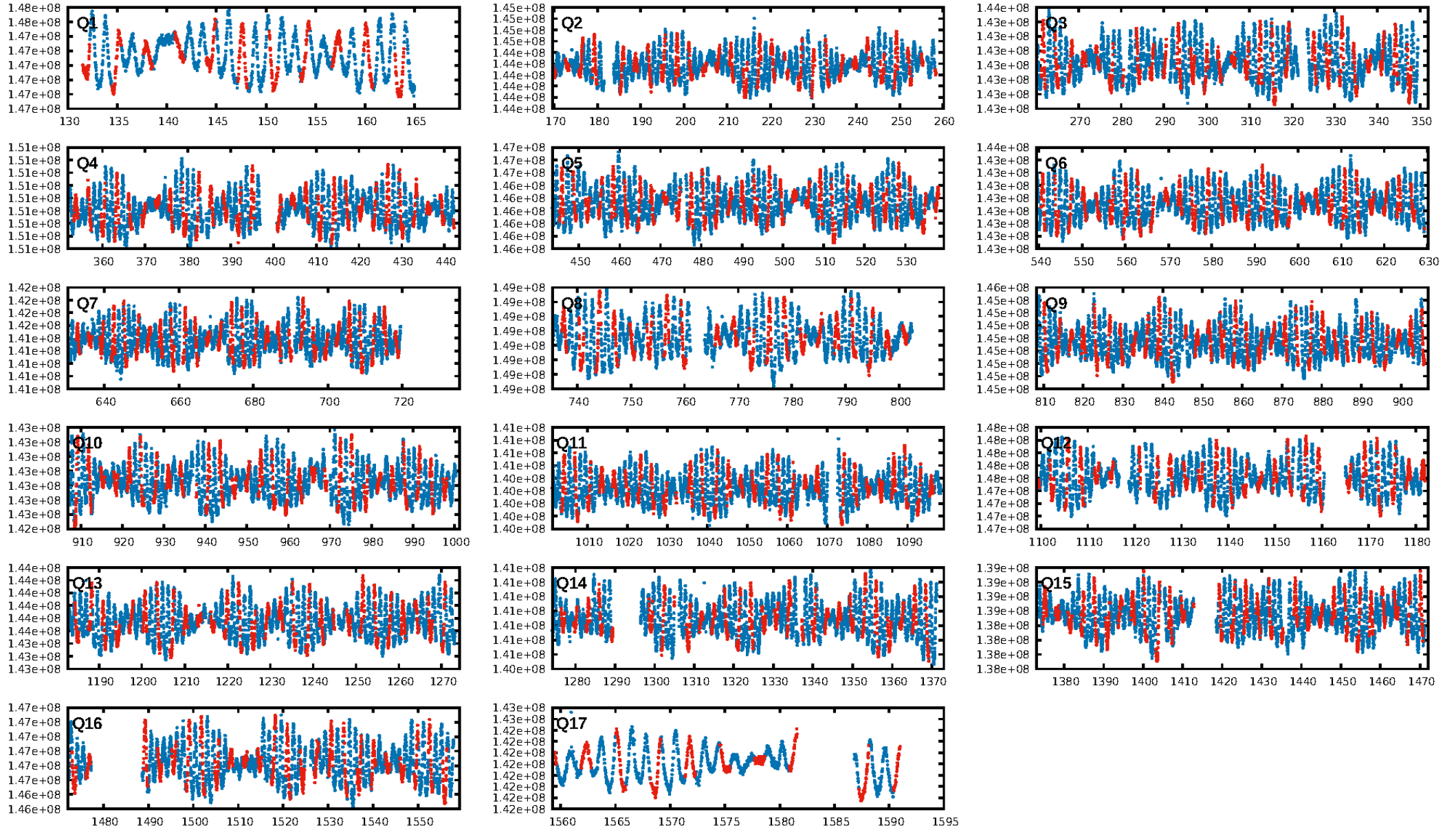
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [5.06σ]
LongPeriod-sig: 0.1% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [368/368]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.422 arcsec [1.30σ]
OotOffset-rm: 0.519 arcsec [1.79σ]
OotOffset-st: 3/4/1/4 [12]
KicOffset-st: 3/4/1/4 [12]
DiffImageQuality-fgm: 0.42 [5/12]
DiffImageOverlap-fno: 0.00 [0/17]

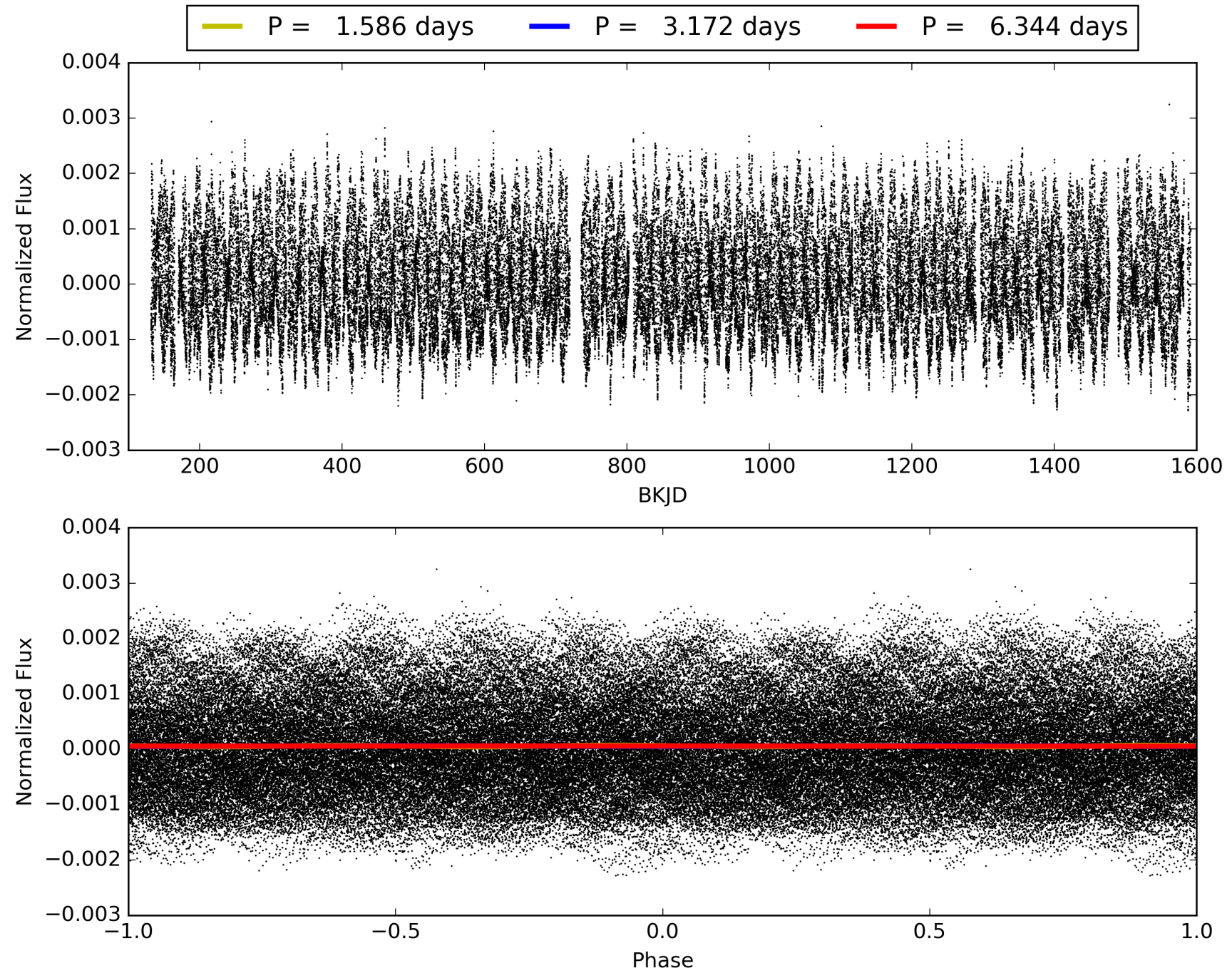
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:03:43 Z

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

TCE 010328476-02, PDC Light Curves

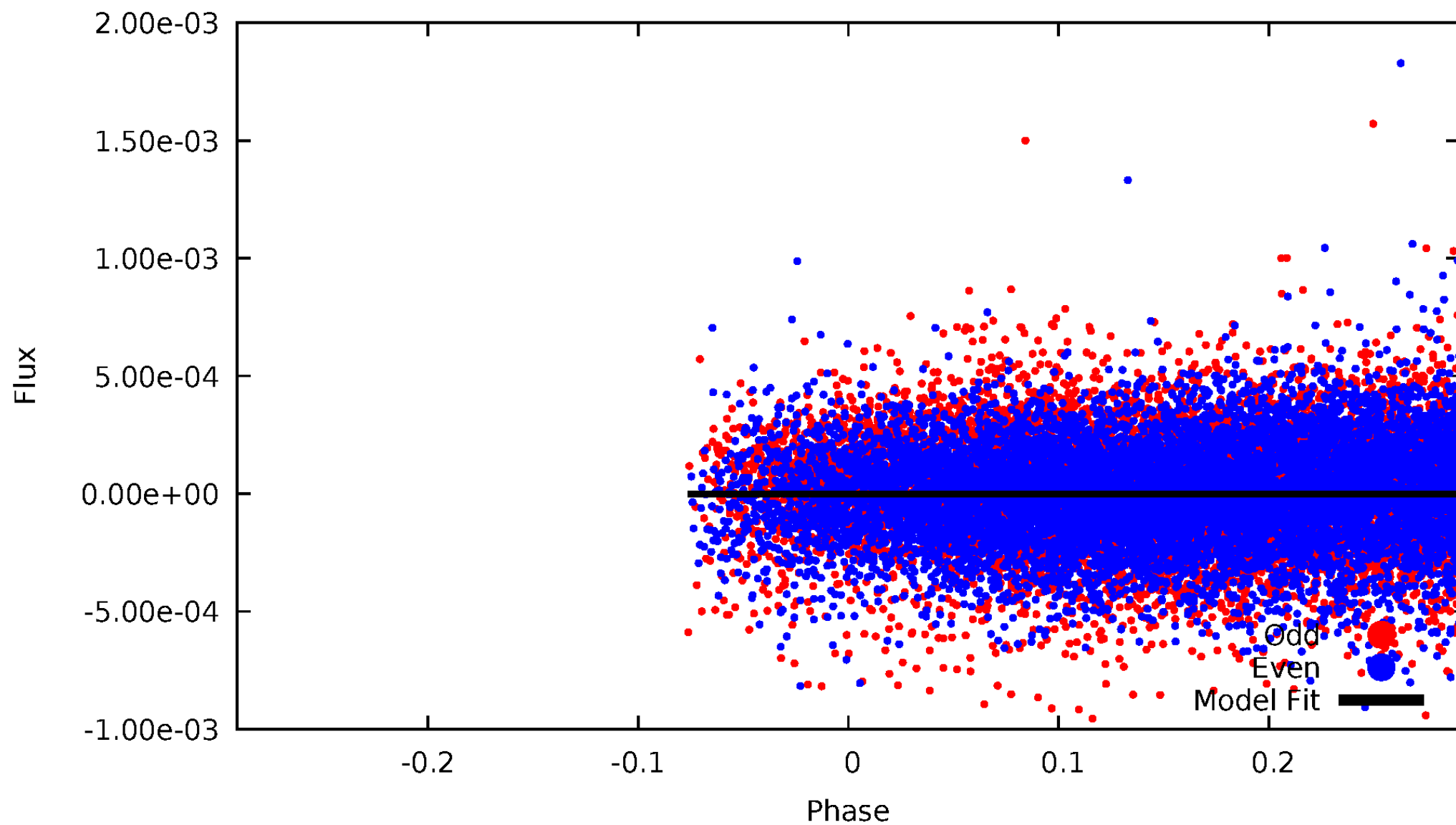


TCE 010328476-02



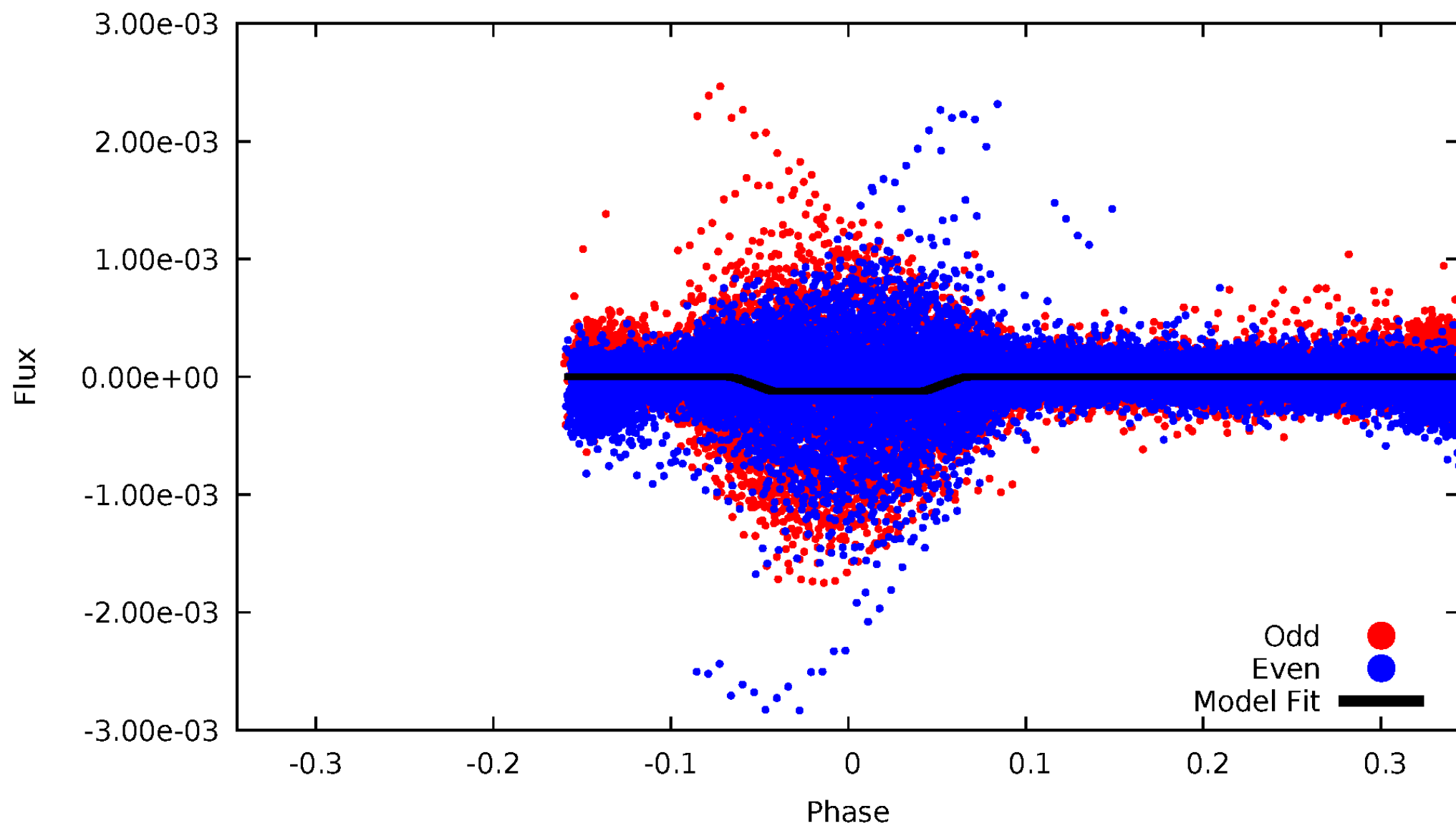
DV Odd/Even

TCE 010328476-02



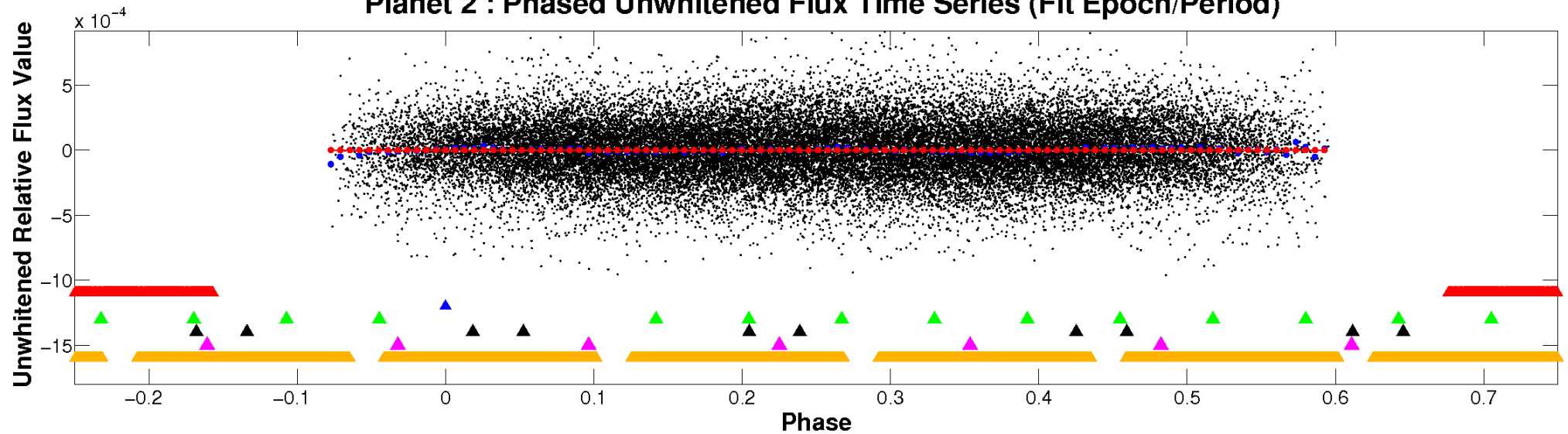
ALT Odd/Even

TCE 010328476-02

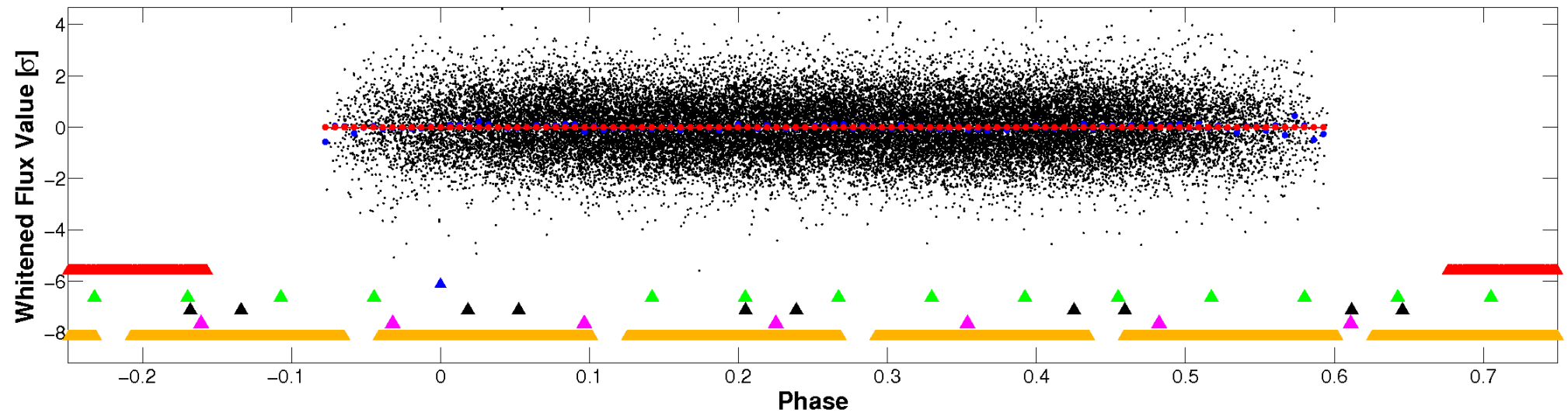


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

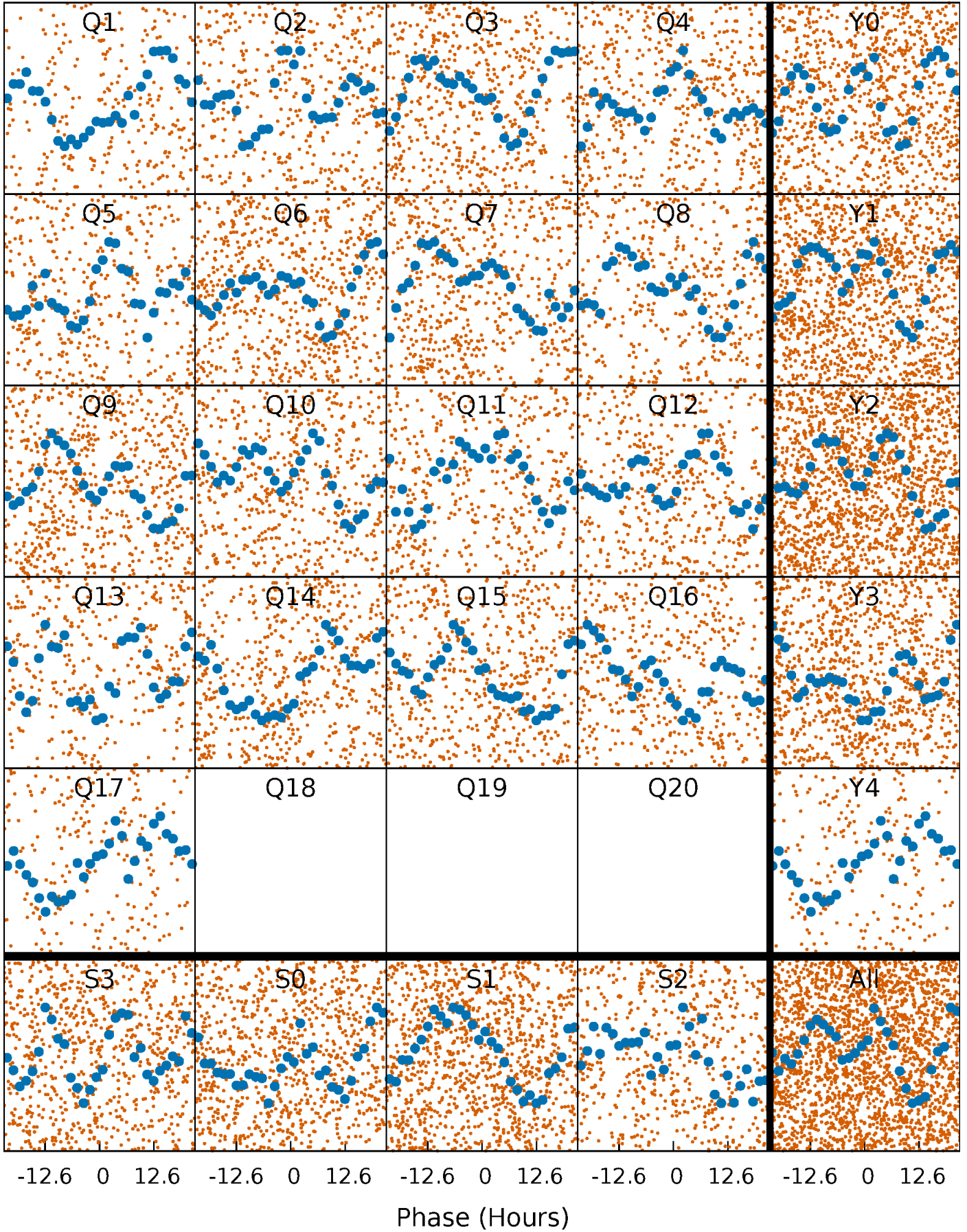


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



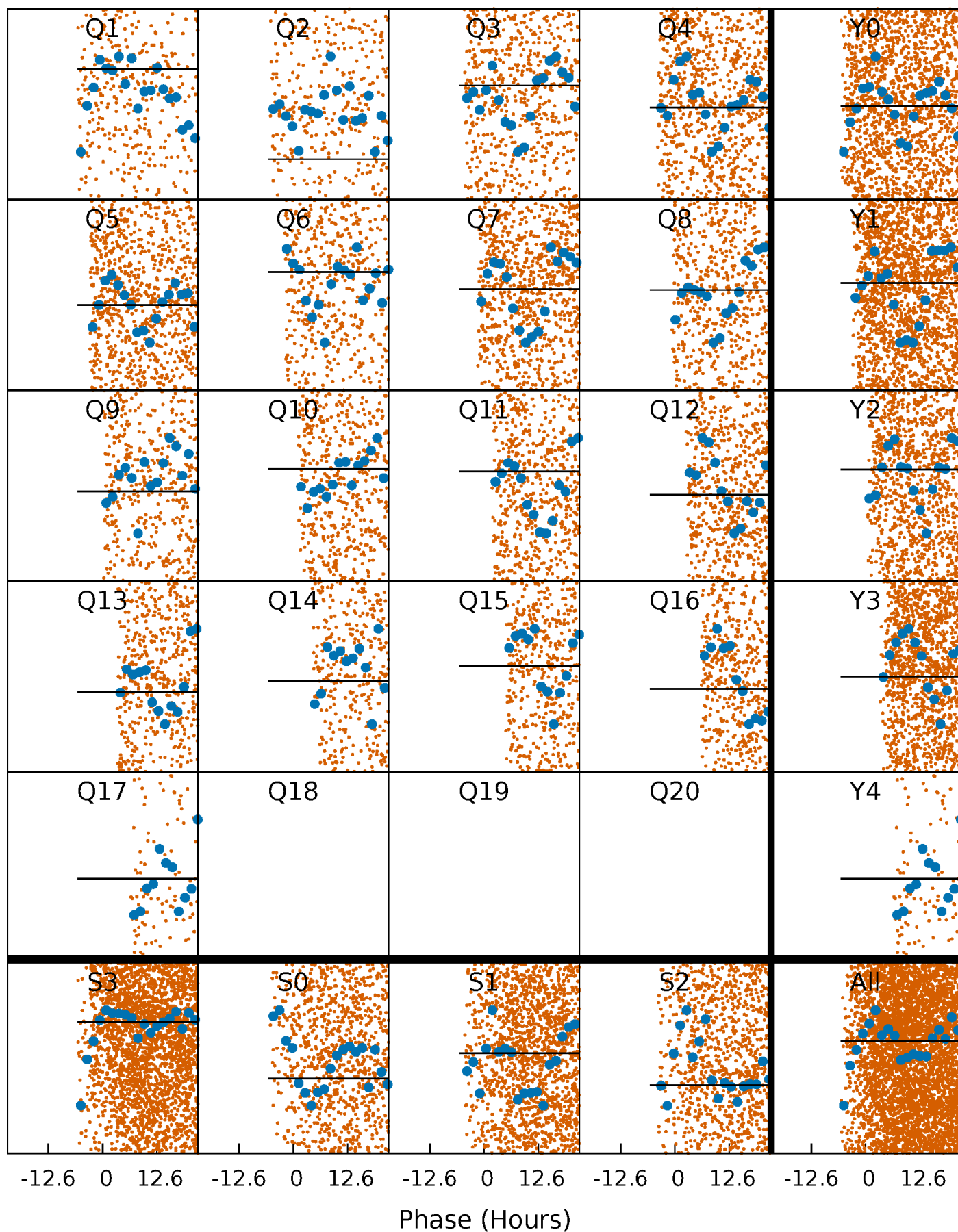
PDC Quarter-Phased Transit Curves

TCE 010328476-02 P= 3.171969 Days $T_0=131.749424$ (BKJD)



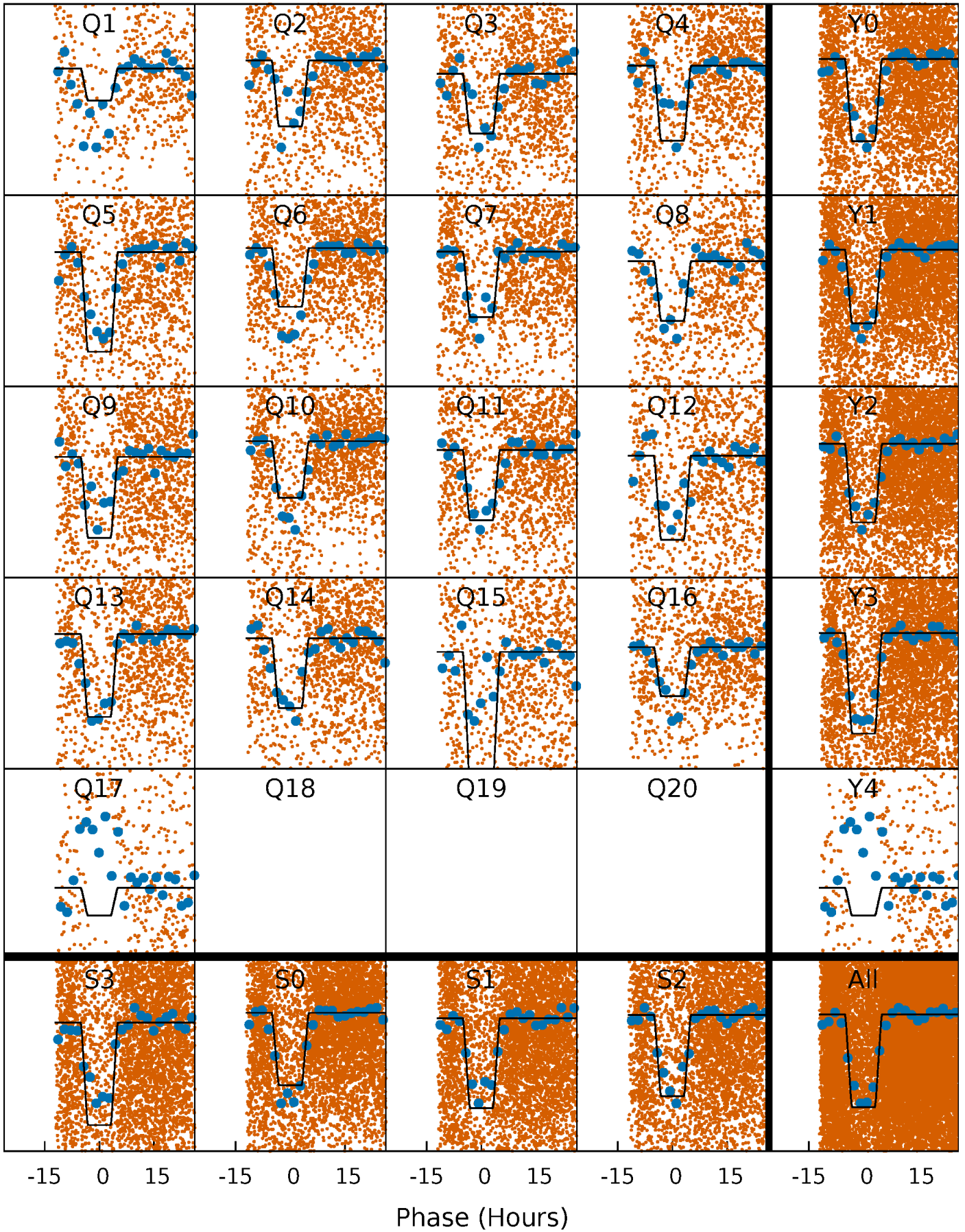
DV Quarter-Phased Transit Curves

TCE 010328476-02 P= 3.171969 Days $T_0=131.749424$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

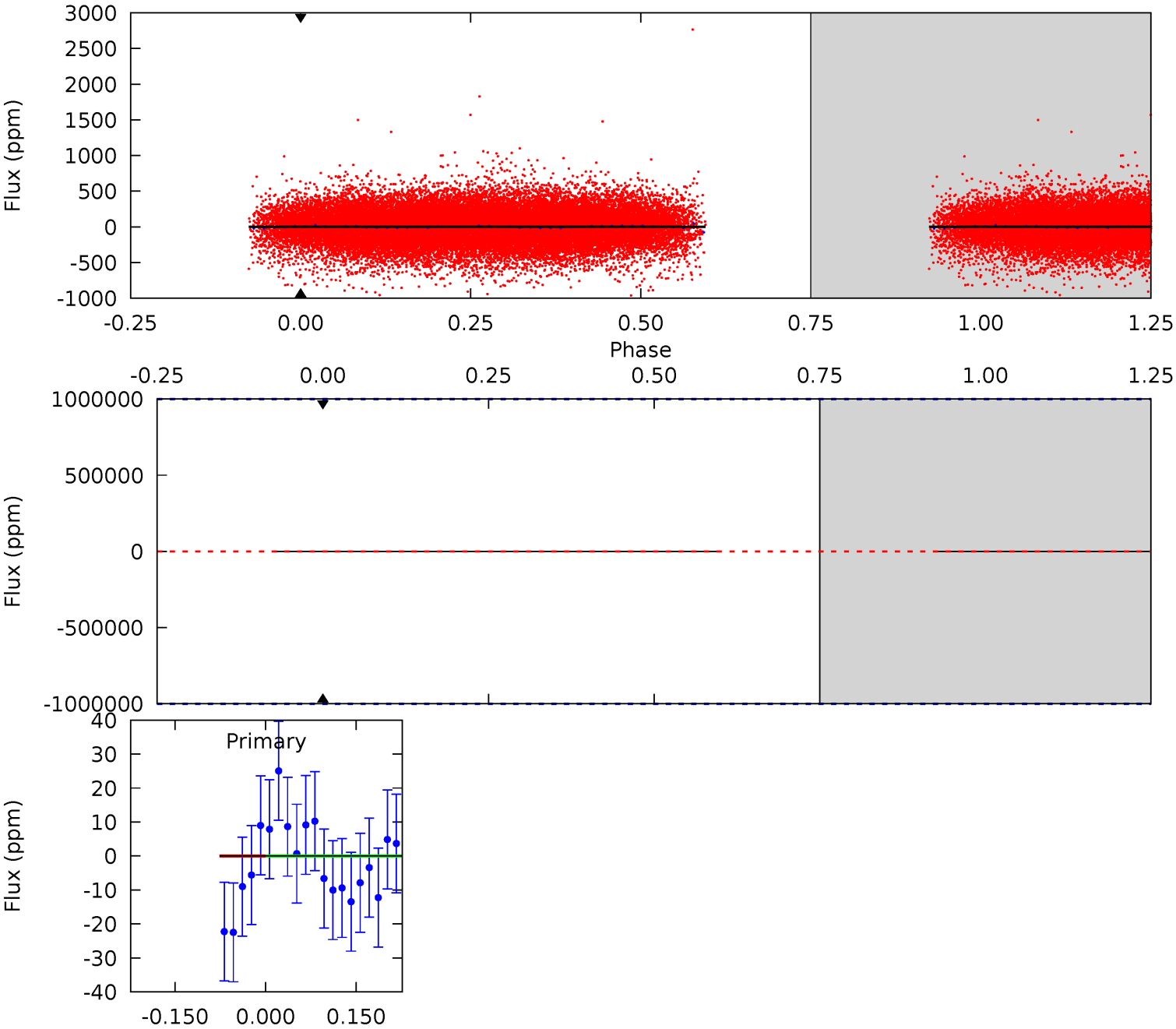
TCE 010328476-02 $P = 3.173058$ Days $T_0 = 132.011925$ (BKJD)



DV Model-Shift Uniqueness Test

010328476-02, P = 3.171969 Days, E = 128.577455 Days

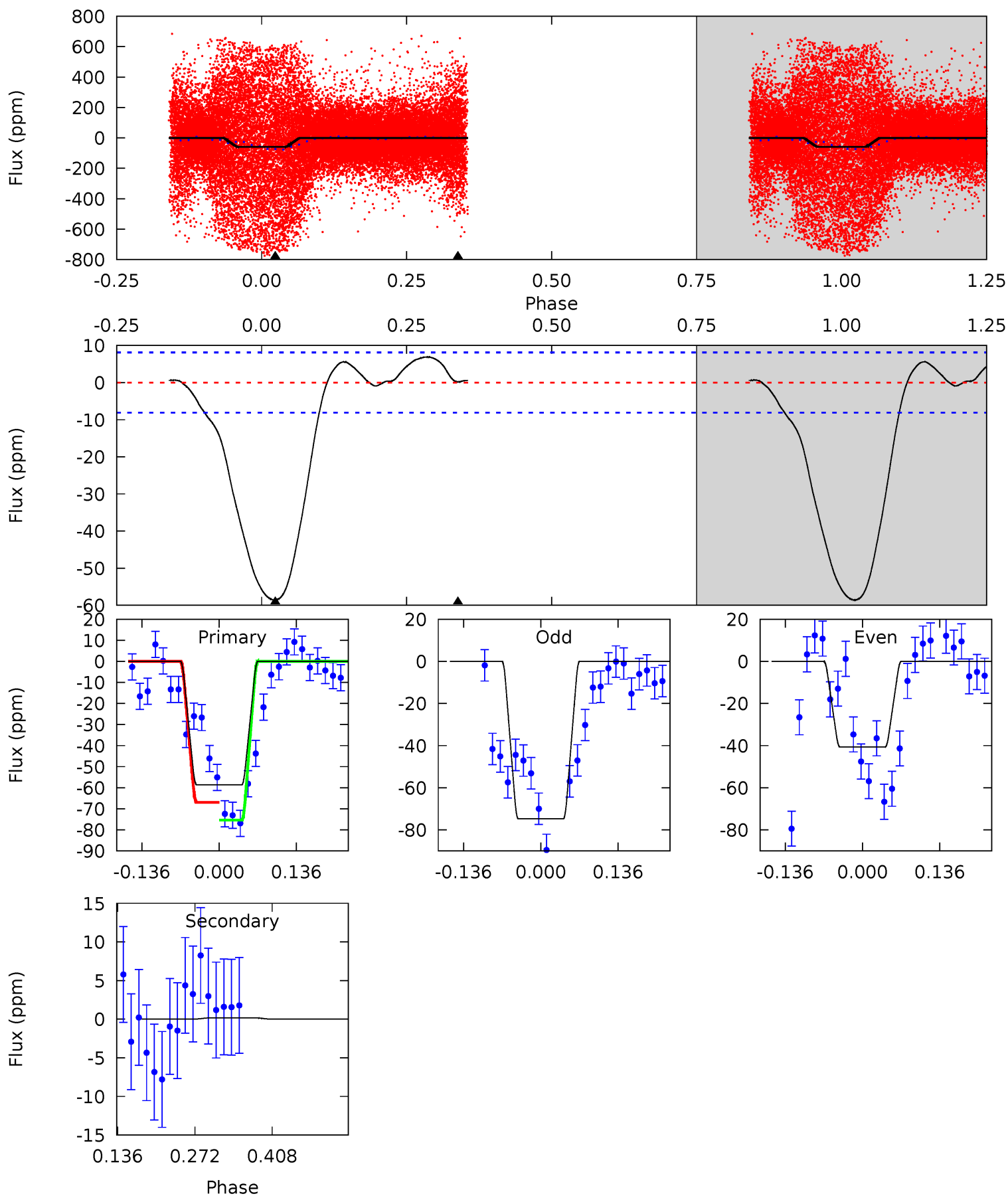
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

010328476-02, P = 3.173058 Days, E = 128.838867 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.5	-0.09	0	0	4.50	1.49	1.04	32.5	32.5	-0.09	-0.09	7.59	1.67	0.11	2.16



Stellar Parameters For KIC 010328476

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7270^{+228}_{-304}	$4.235^{+0.090}_{-0.210}$	$-0.040^{+0.200}_{-0.350}$	$1.534^{+0.547}_{-0.235}$	$1.471^{+0.219}_{-0.197}$	$0.574^{+0.228}_{-0.309}$
	+3%/-4%	+2%/-5%	+500%/-875%	+36%/-15%	+15%/-13%	+40%/-54%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 010328476-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$653.86^{+797.75}_{-473.45}$	275^{+143}_{-67}	1619^{+1554}_{-4556}	$3.302^{+5110.335}_{-3620.371}$
Alt.	0 ± 2	$669.83^{+744.21}_{-473.51}$	265^{+139}_{-59}	-1215^{+103}_{-184}	$-0.001^{+0.054}_{-0.106}$

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 $A_{obs} \gg 1.0$

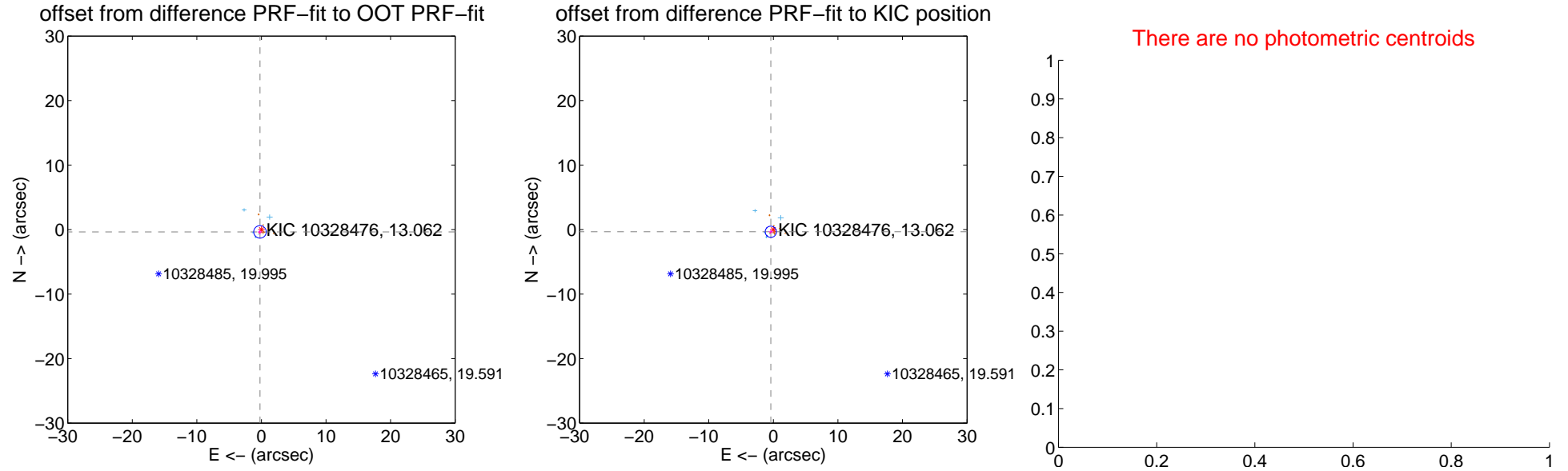
DV Centroid Data

Supplemental centroid analysis for 010328476-02. Kepler magnitude: 13.06. Transit SNR 0.00

There are 5 quarters with good PRF difference image offsets

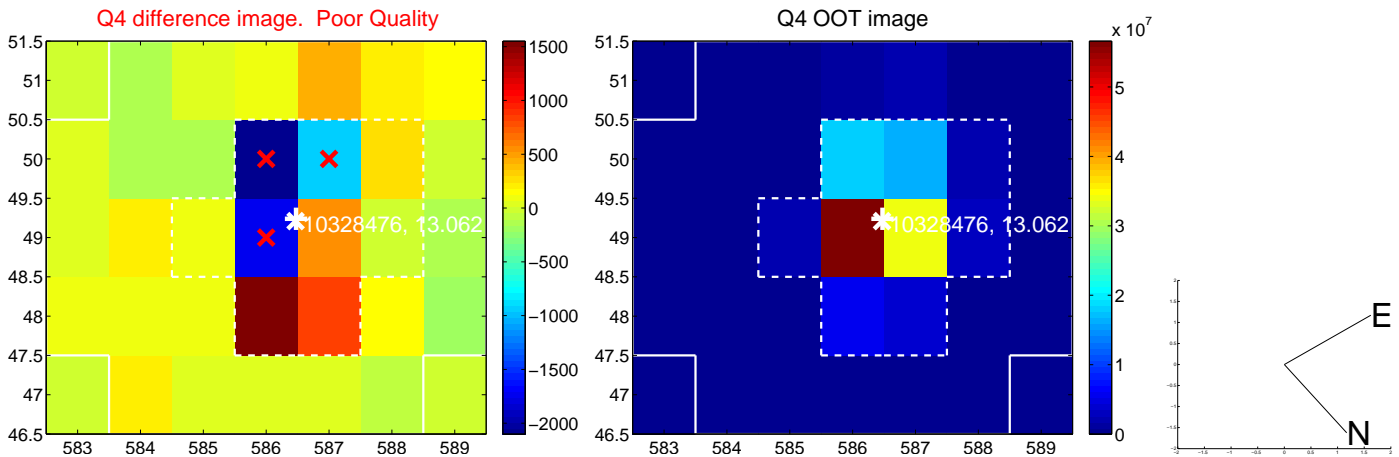
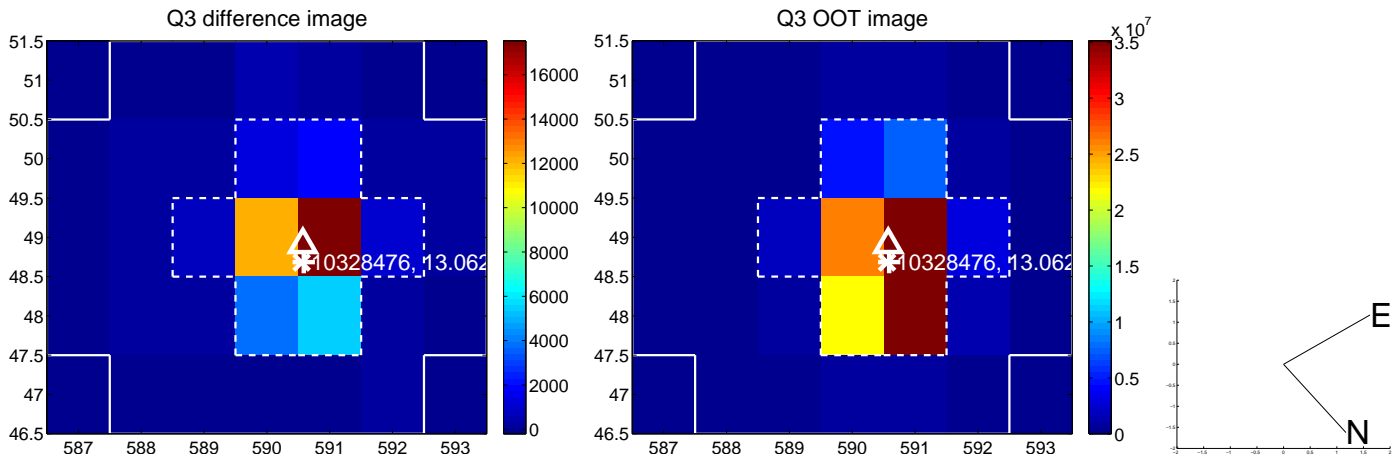
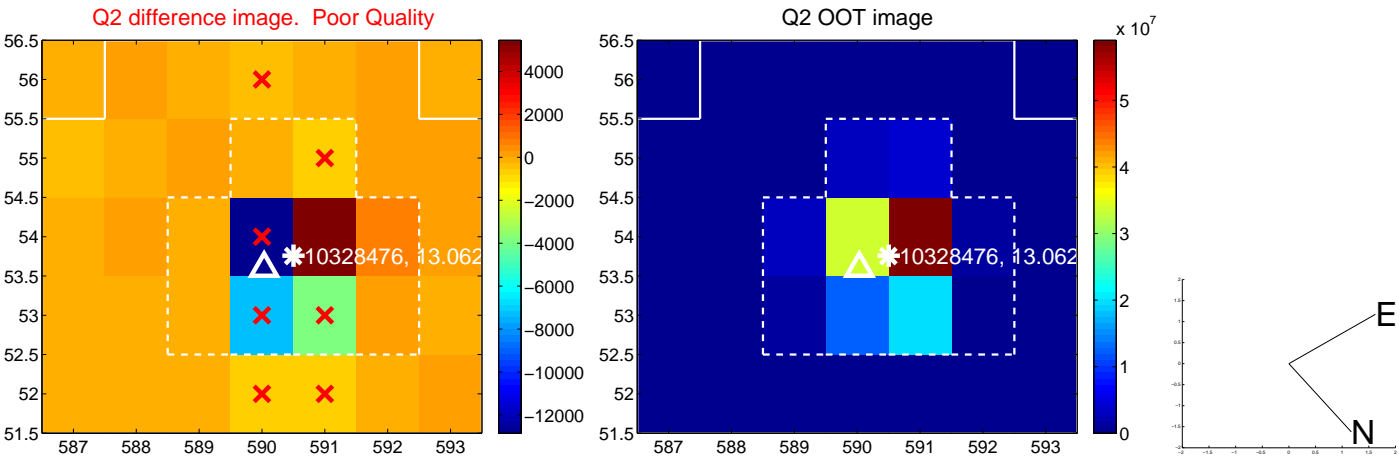
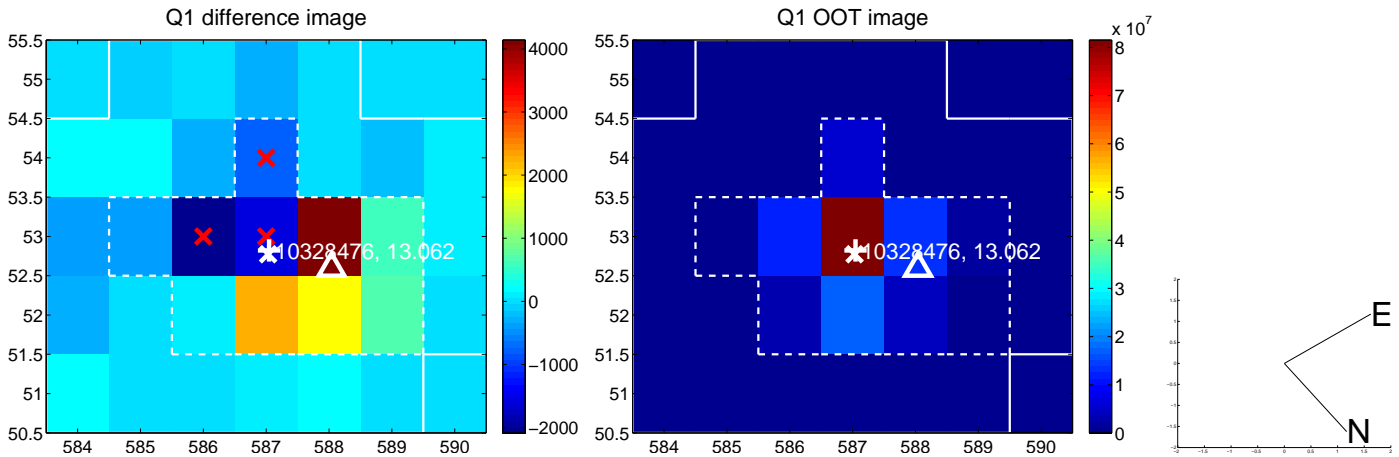
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.422 ± 0.323	1.30	0.224 ± 0.352	-0.358 ± 0.388
PRF-fit source offset from KIC position	0.519 ± 0.289	1.79	0.393 ± 0.321	-0.338 ± 0.339
photometric centroid source offset	—	—	—	—

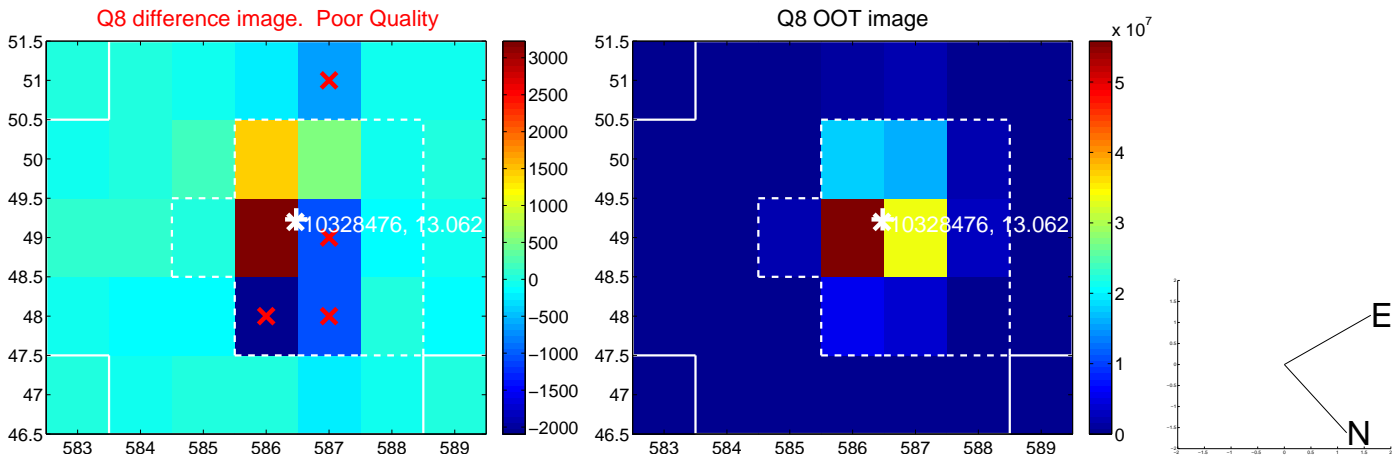
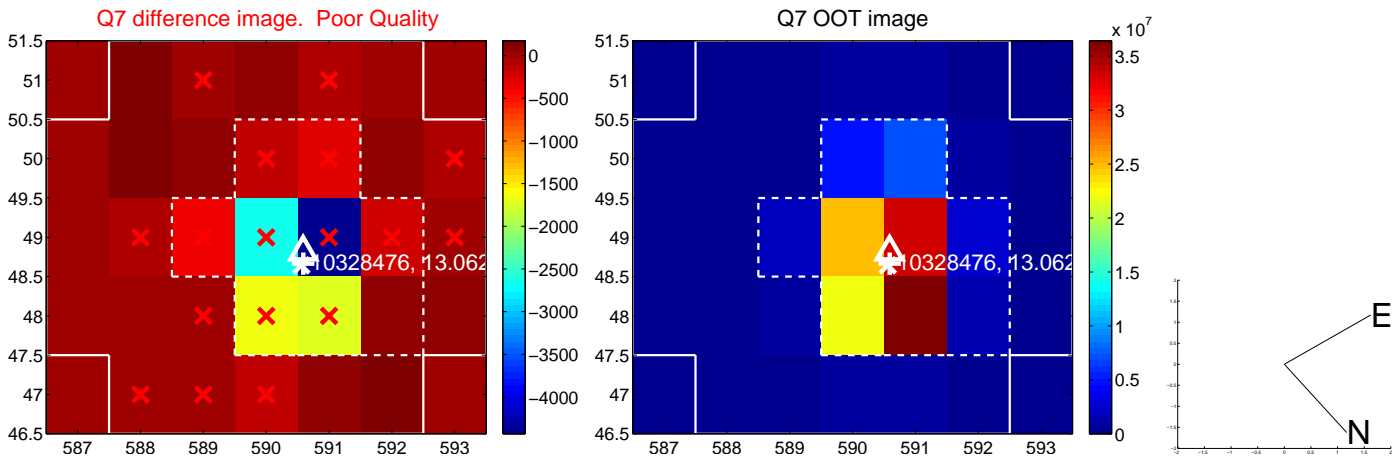
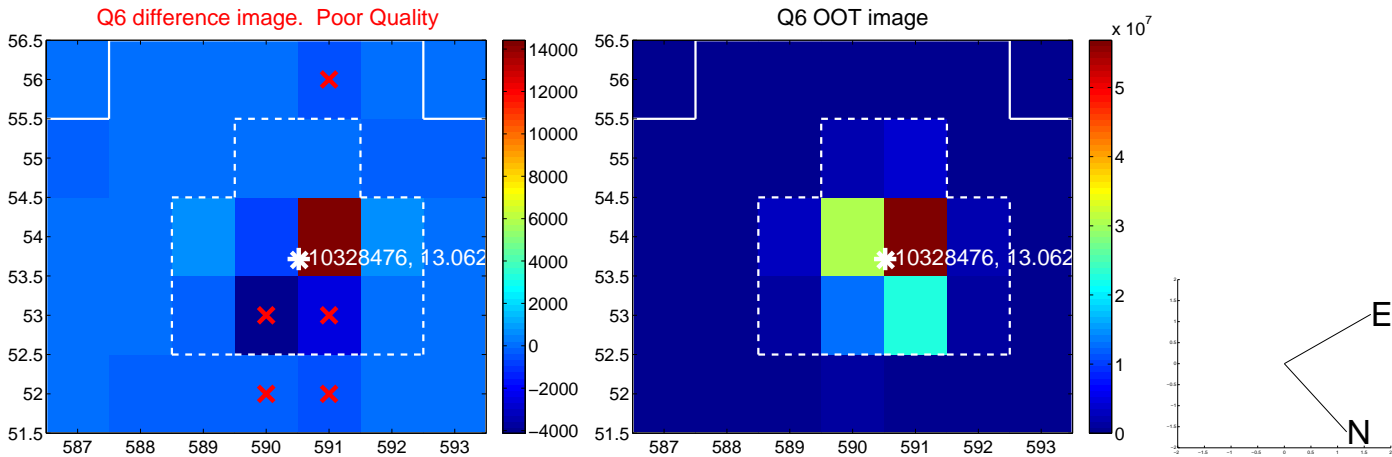
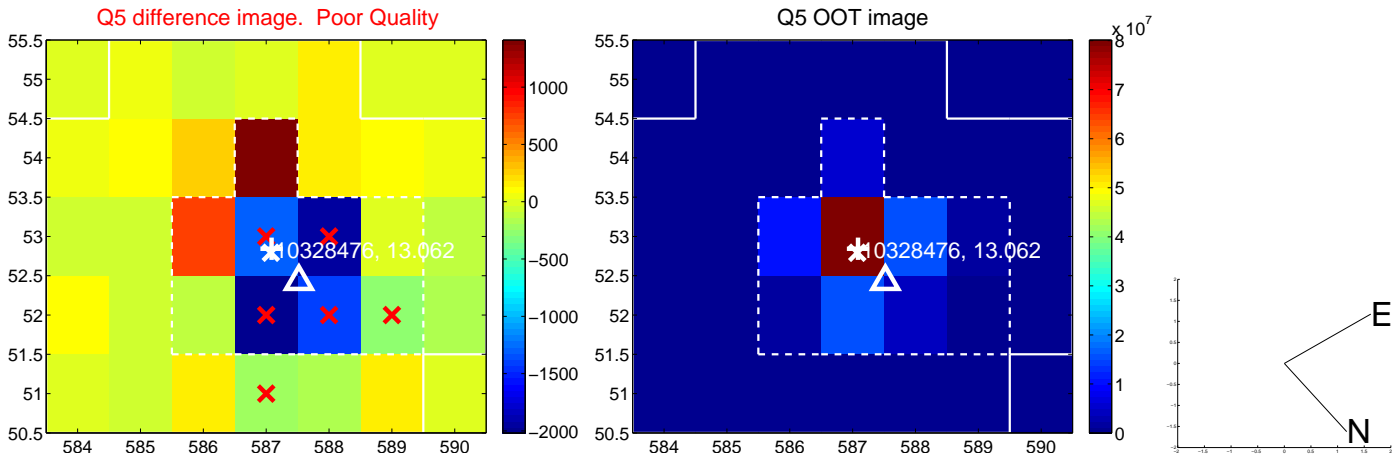


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

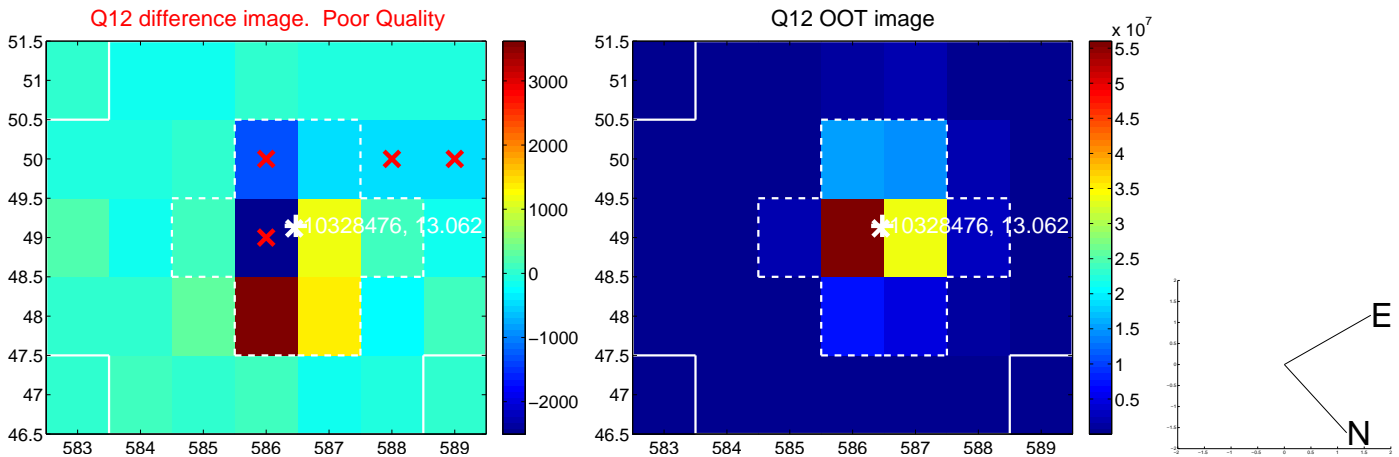
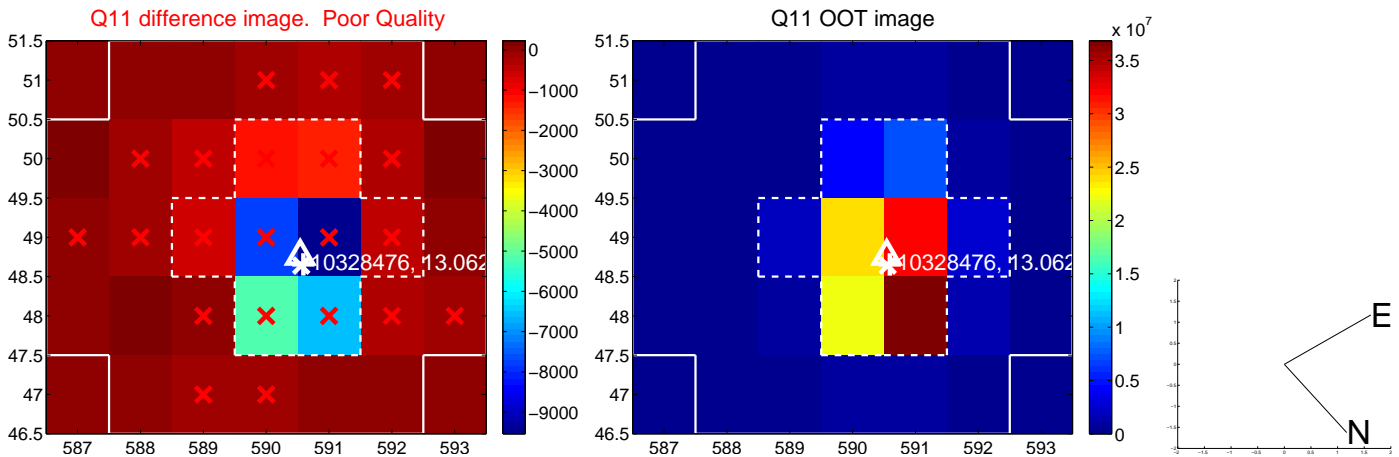
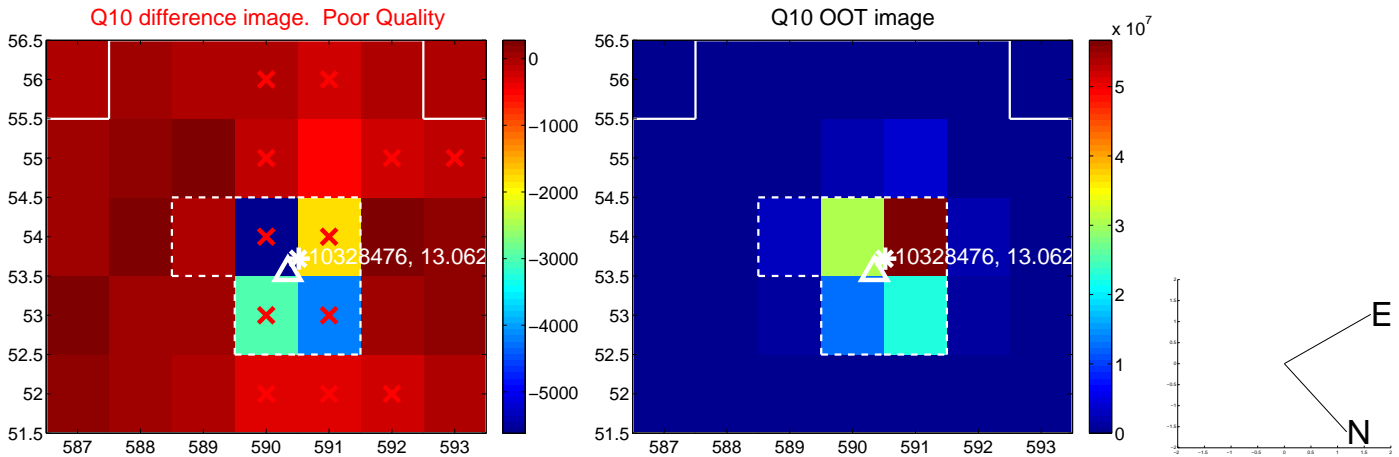
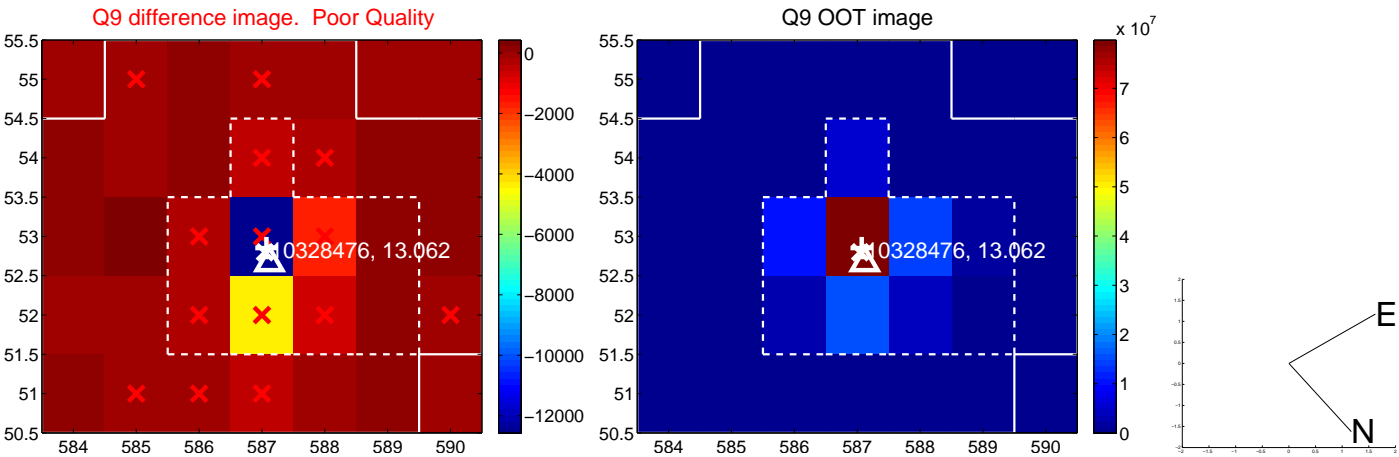
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



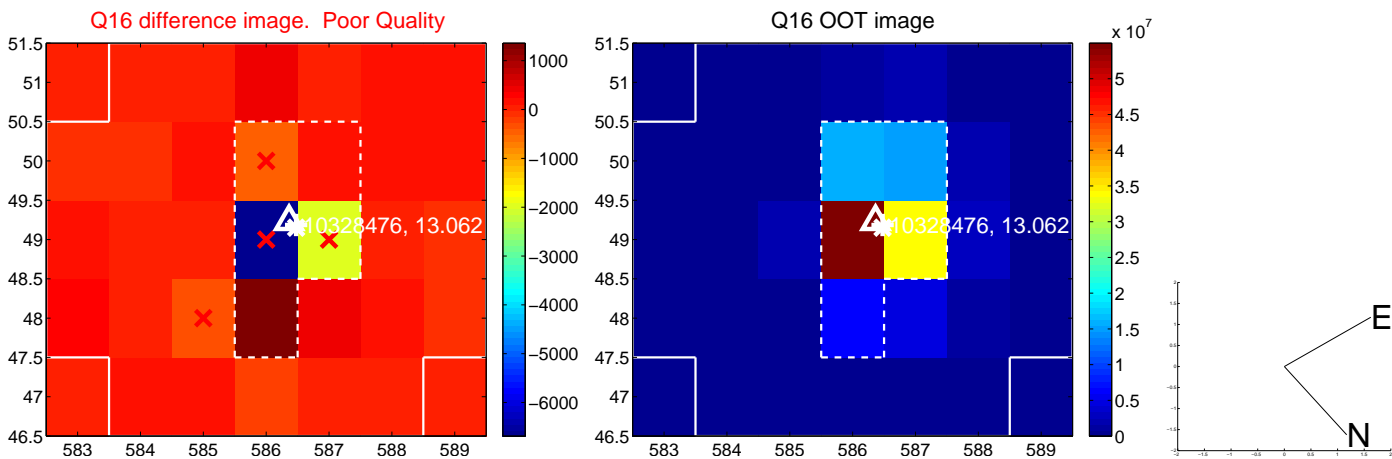
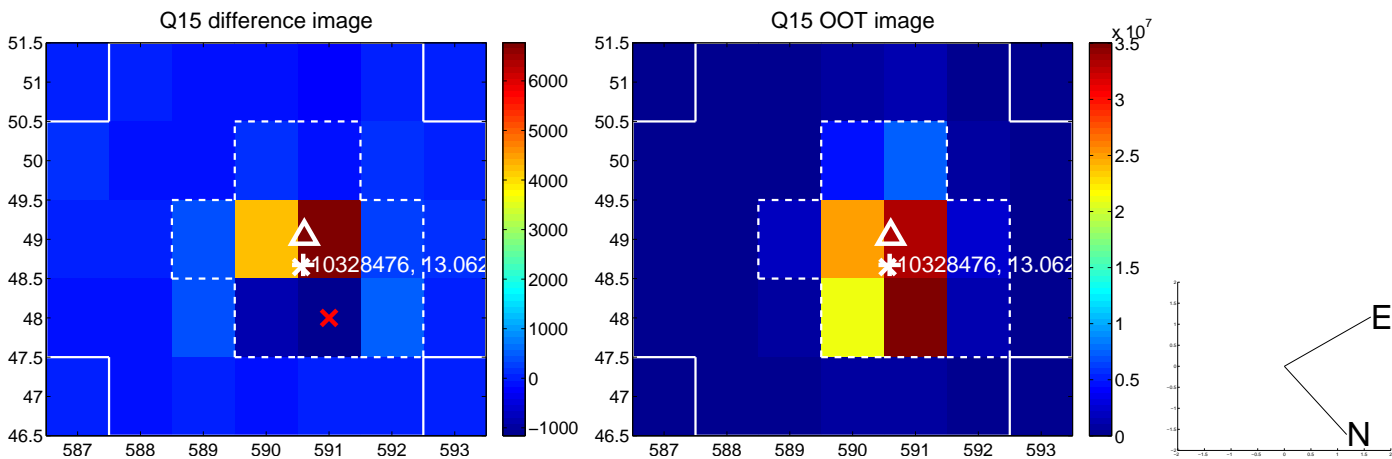
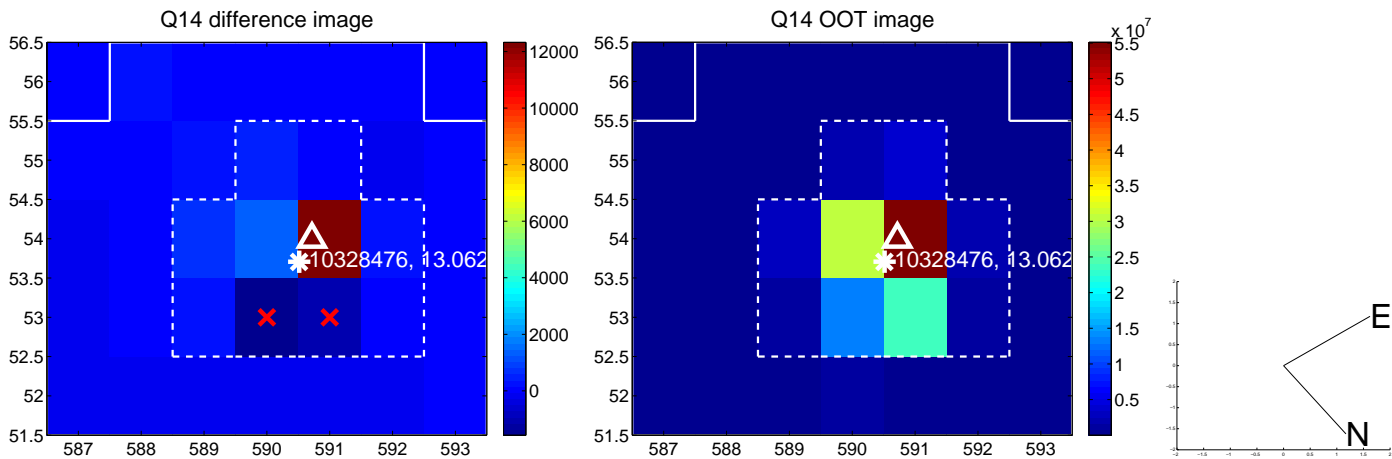
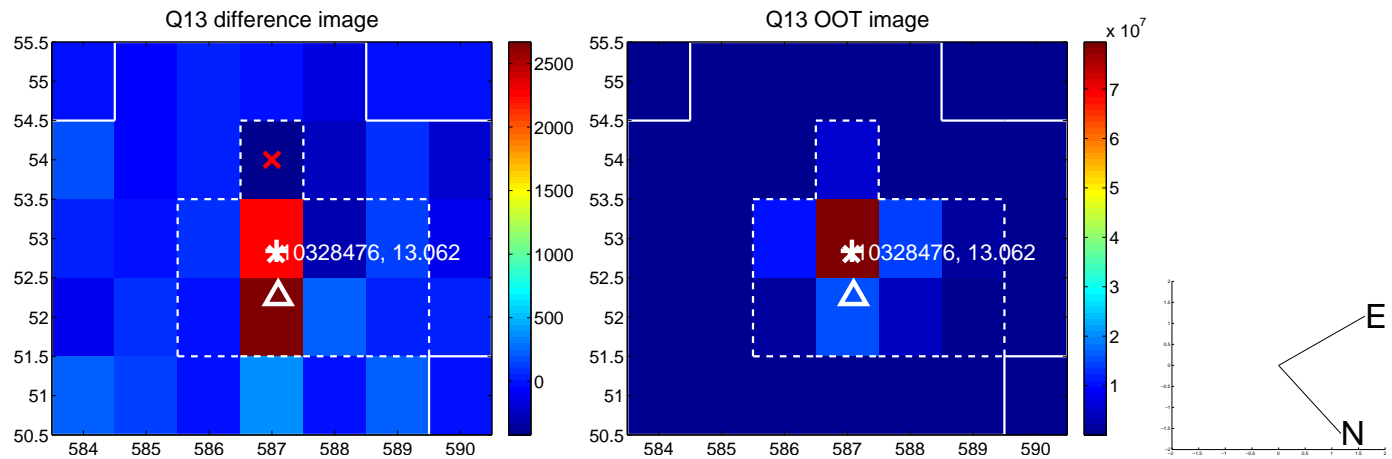
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



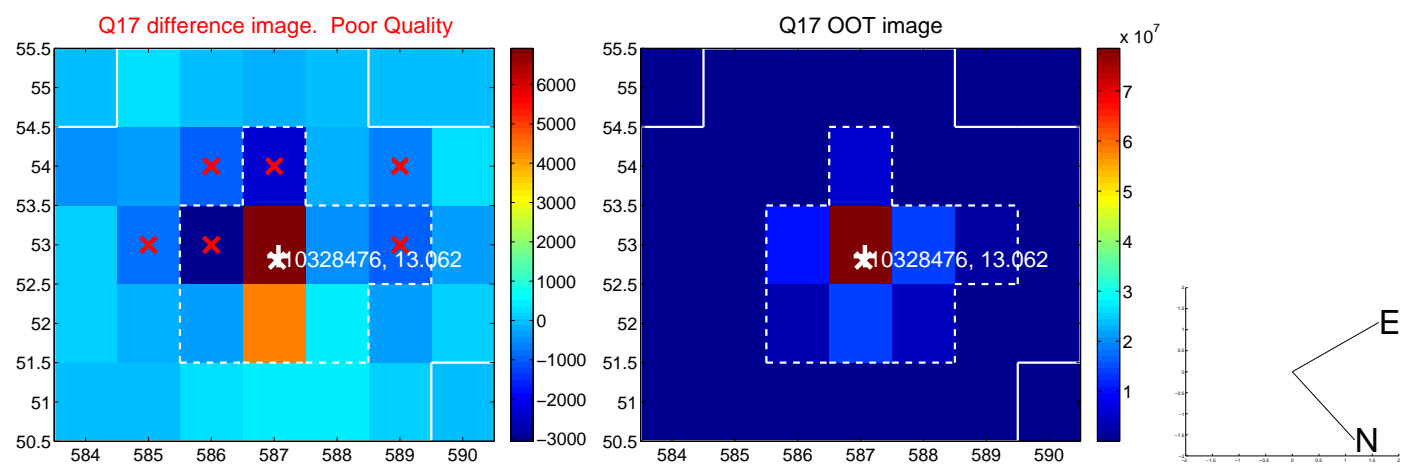
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



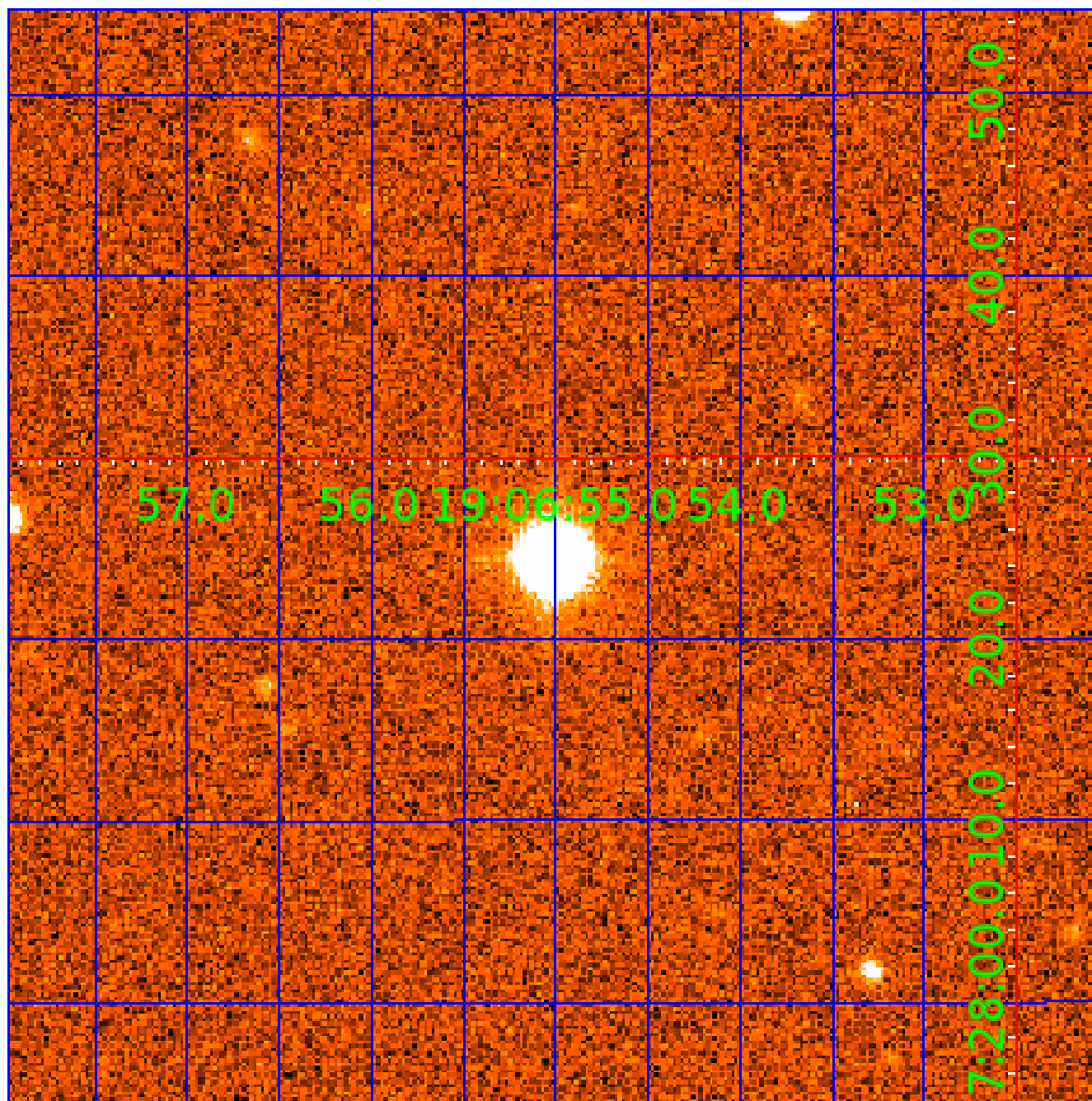
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 010328476

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})
010328476-01	OBS	No	3.173124	133.893882	28.0	12.358	9.8	5.6	1.53	7270	0.94	2544.48
010328476-02	OBS	No	3.171969	131.749424	0.0	11.066	10.1	0.0	1.53	7270	0.00	2545.72
010328476-03	OBS	No	104.873442	141.715761	514.2	41.836	15.6	7.5	1.53	7270	4.43	23.99
010328476-05	OBS	No	216.101813	175.647312	392.8	13.258	9.3	7.9	1.53	7270	3.43	9.15
010328476-06	OBS	No	0.528827	131.617899	37.6	5.896	8.2	13.5	1.53	7270	0.95	27743.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010328476-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV
010328476-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—SAME_NTL_PERIOD
010328476-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—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_FEW_DIFFS—HALO_GHOST
010328476-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
010328476-06	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD—CENT_FEW_DIFFS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

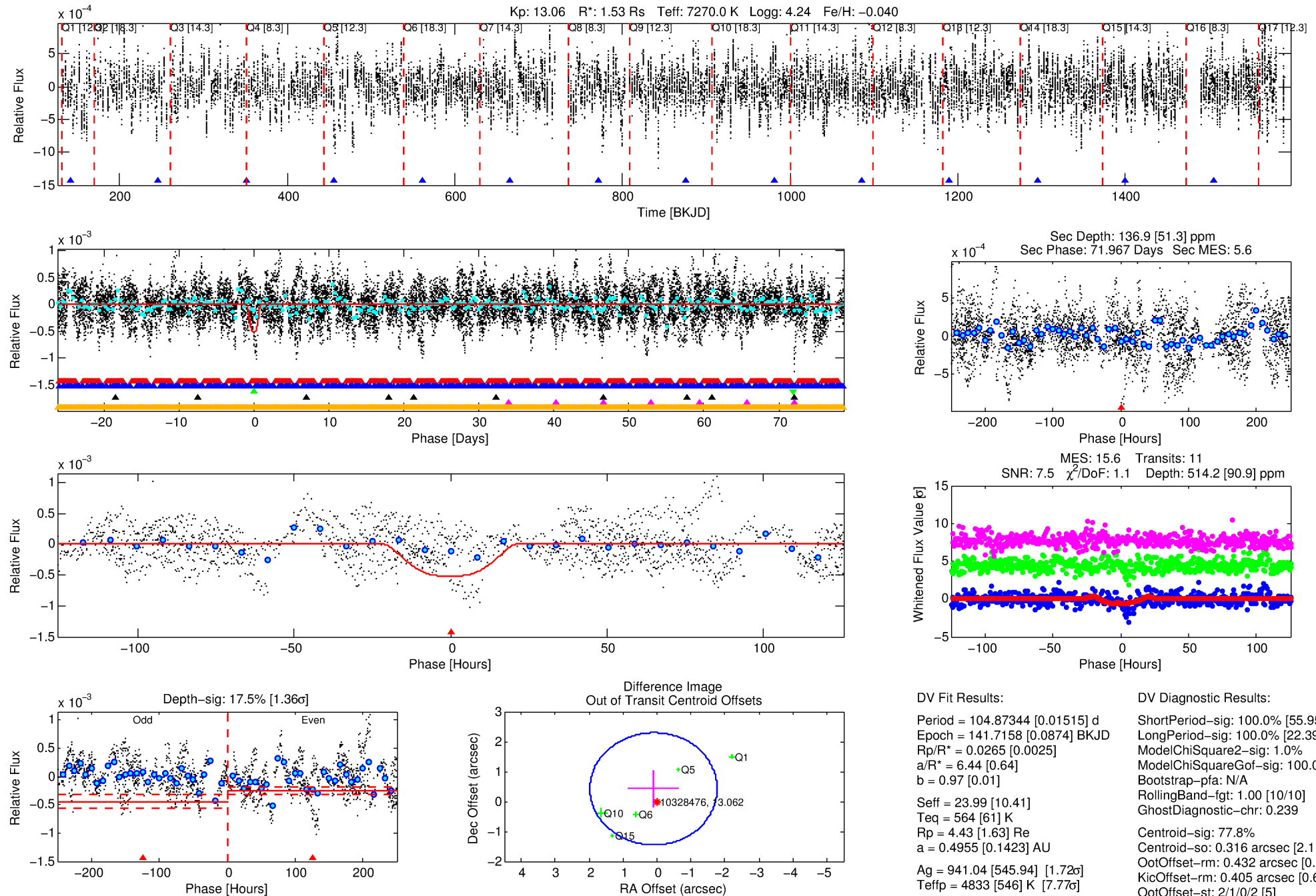
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010328476-03

No Significant Match Found

DV One-Page Summary

KIC: 10328476 Candidate: 3 of 6 Period: 104.873 d



DV Fit Results:

Period = 104.87344 [0.01515] d
Epoch = 141.7158 [0.0874] BKJD
Rp/R* = 0.0265 [0.0025]
a/R* = 6.44 [0.64]
b = 0.97 [0.01]
Seff = 23.99 [10.41]
Teff = 564 [61] K
Rp = 4.43 [1.63] Re
a = 0.4955 [0.1423] AU
Ag = 941.04 [545.94] [1.72 σ]
Teffp = 4833 [546] K [7.77 σ]

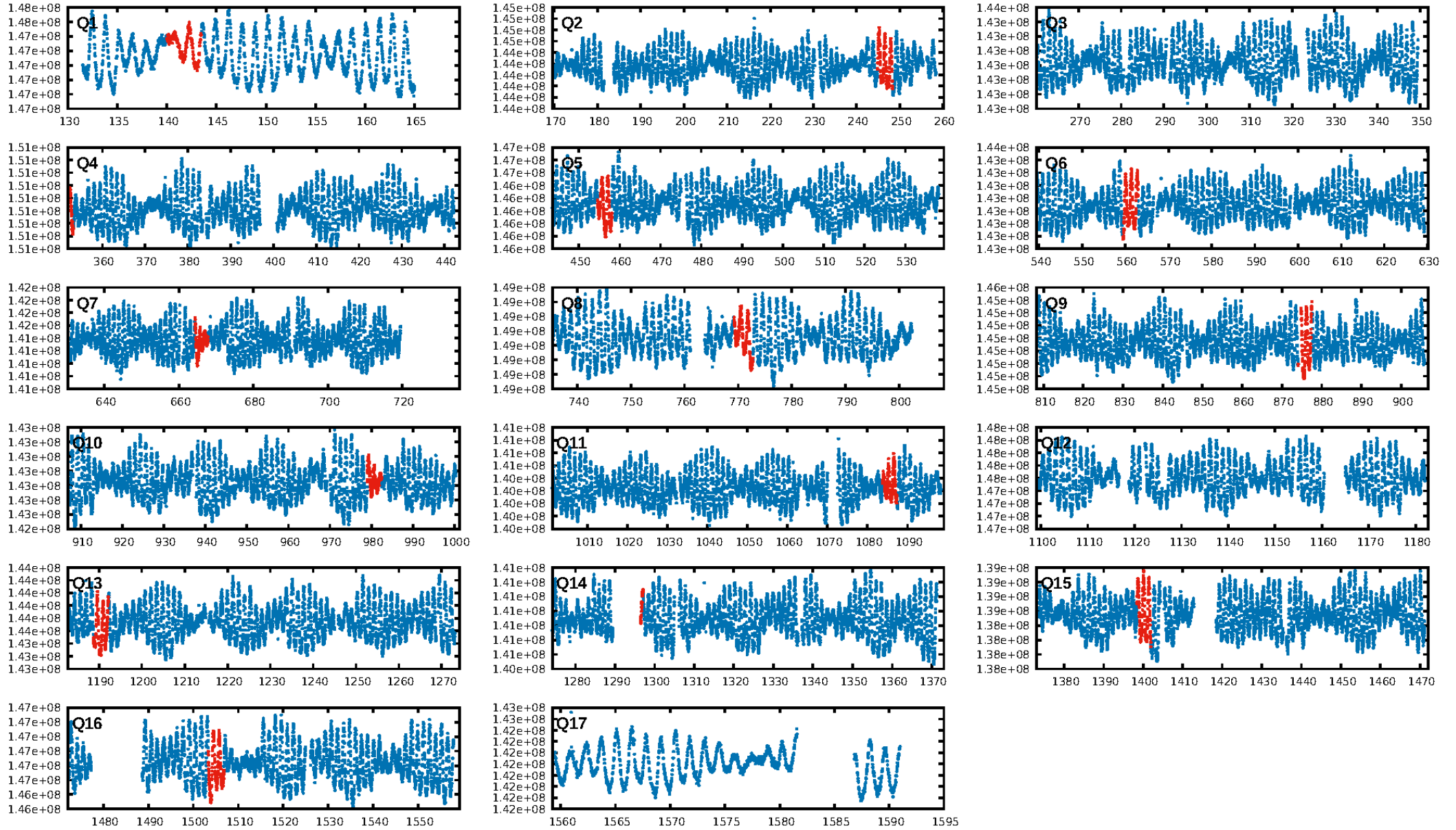
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [55.95 σ]
LongPeriod-sig: 100.0% [22.39 σ]
ModelChiSquare2-sig: 1.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [10/10]
GhostDiagnostic-chr: 0.239
Centroid-sig: 77.8%
Centroid-so: 0.316 arcsec [2.11 σ]
OotOffset-rm: 0.432 arcsec [0.69 σ]
KicOffset-rm: 0.405 arcsec [0.64 σ]
OotOffset-st: 2/1/0/2 [5]
KicOffset-st: 2/1/0/2 [5]
DiffImageQuality-fgm: 0.40 [2/5]
DiffImageOverlap-fno: 0.00 [0/7]

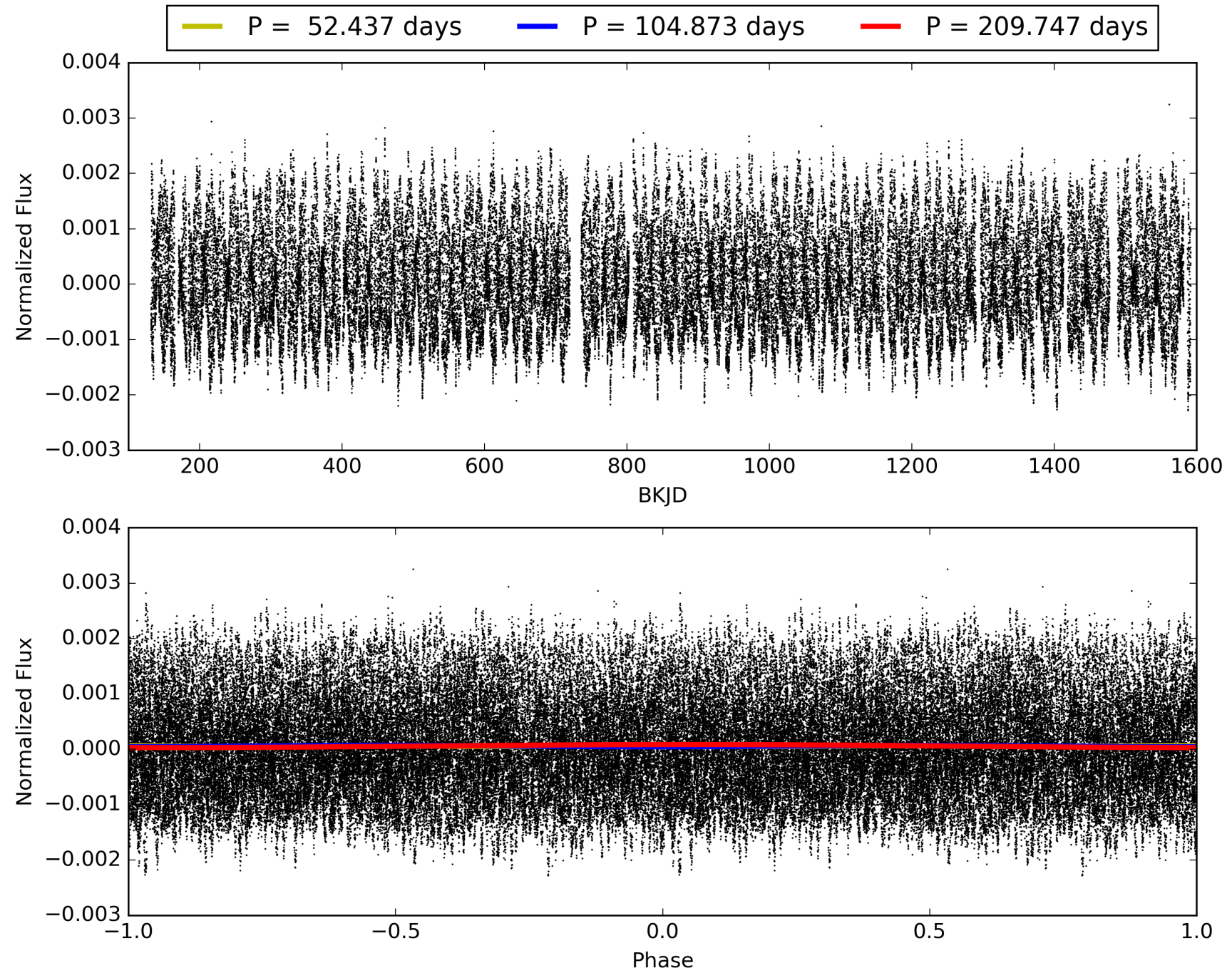
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:03:51 Z

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

TCE 010328476-03, PDC Light Curves

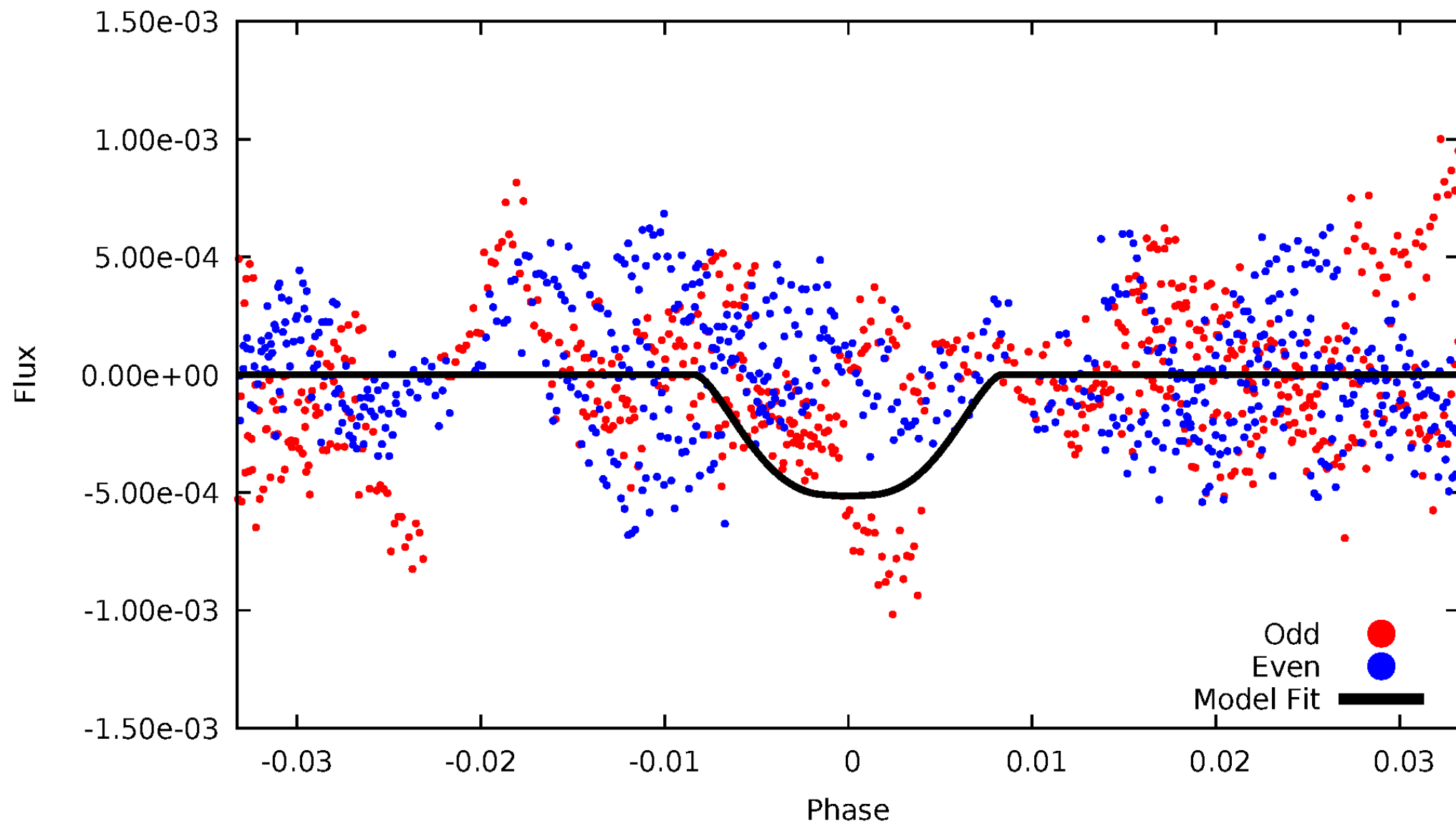


TCE 010328476-03



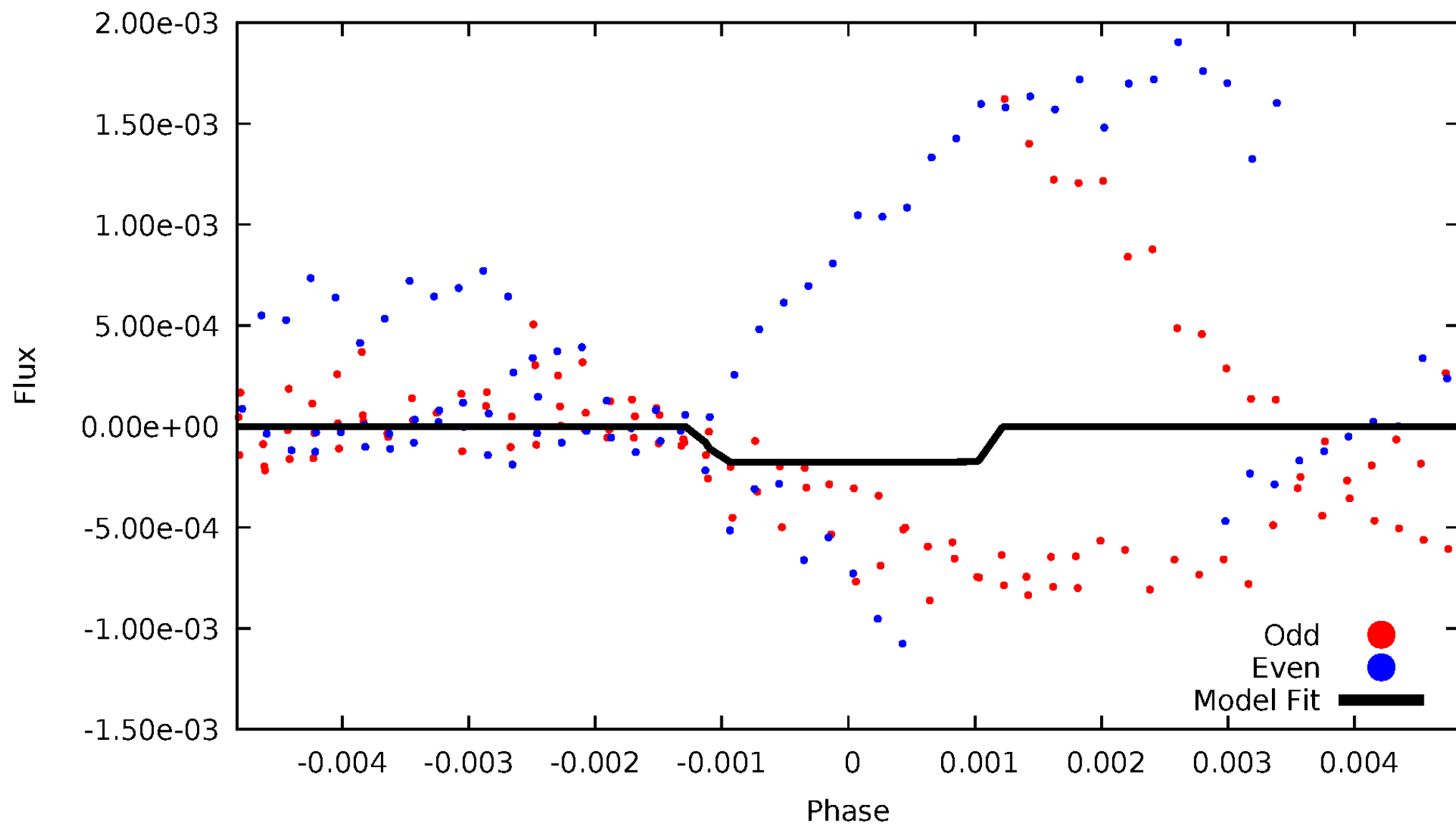
DV Odd/Even

TCE 010328476-03

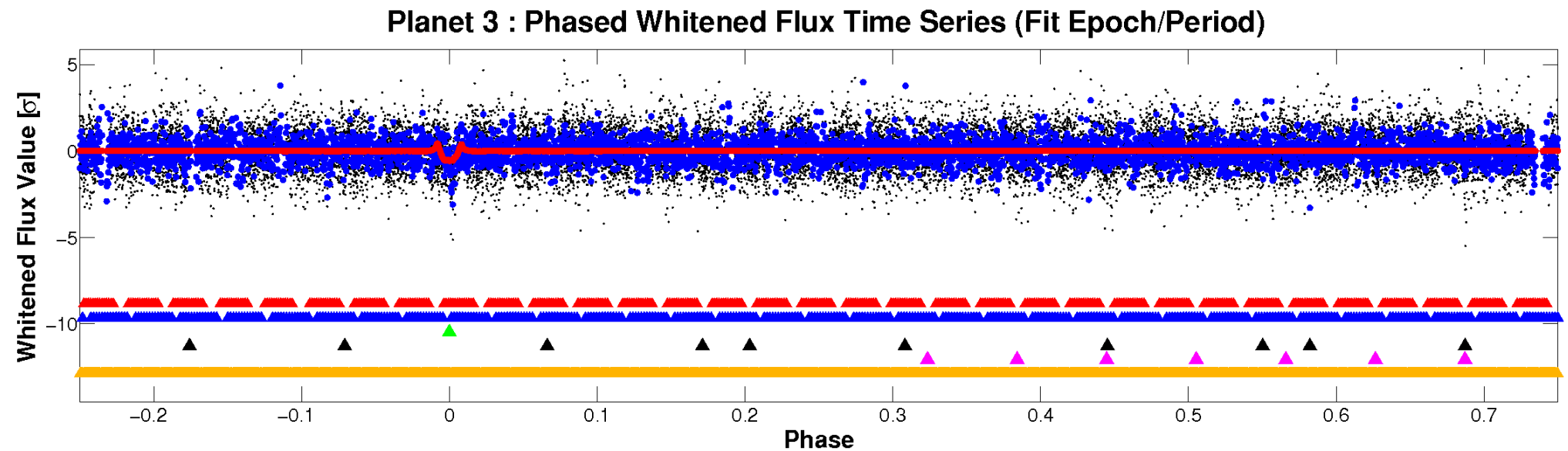
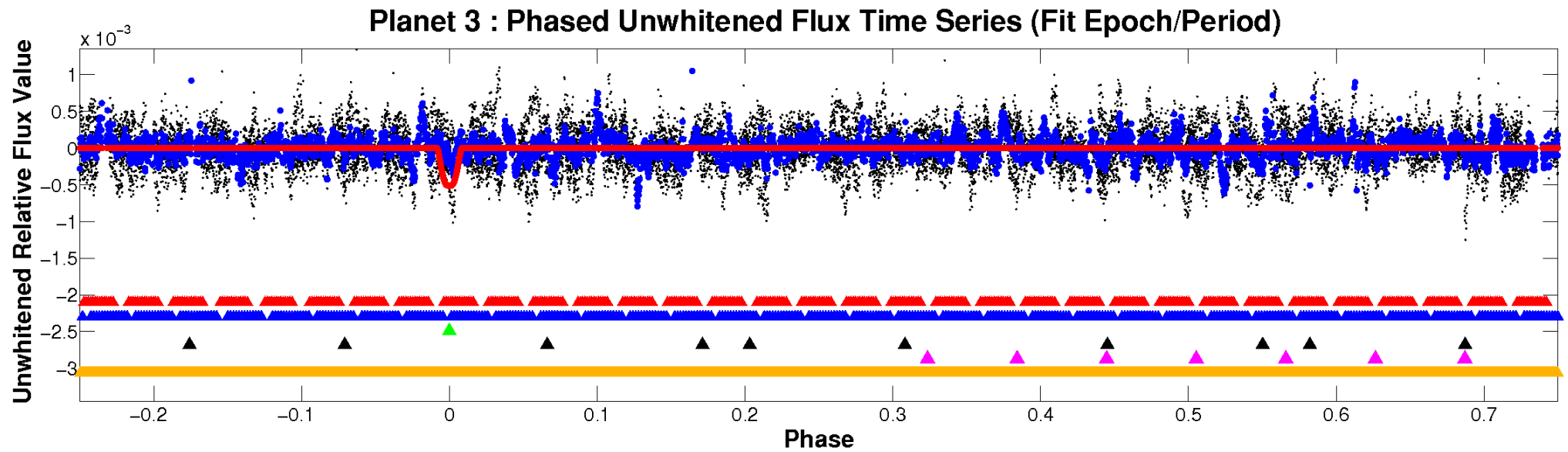


ALT Odd/Even

TCE 010328476-03

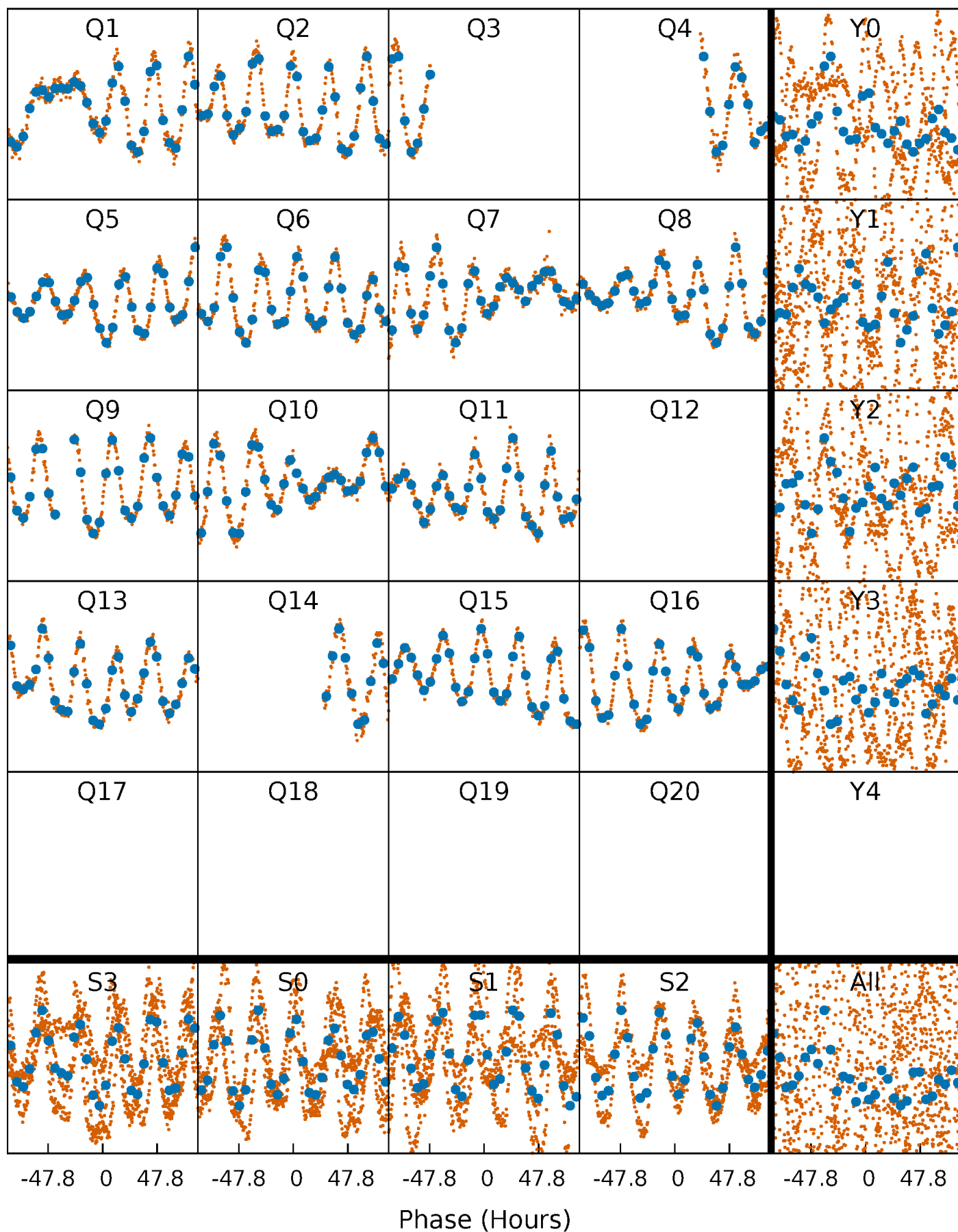


Non-Whitened Vs. Whitened Light Curve



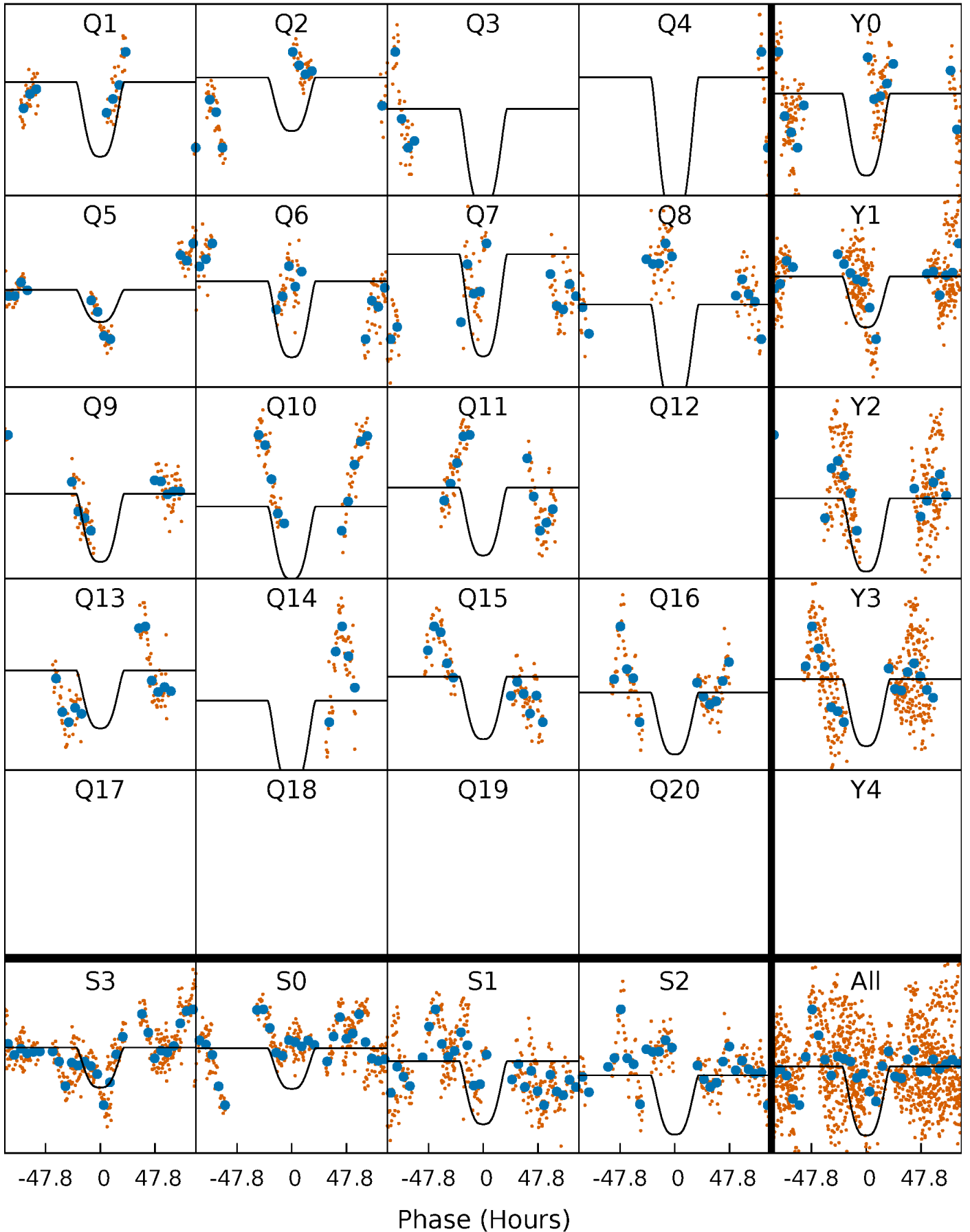
PDC Quarter-Phased Transit Curves

TCE 010328476-03 P=104.873442 Days $T_0=141.715761$ (BKJD)



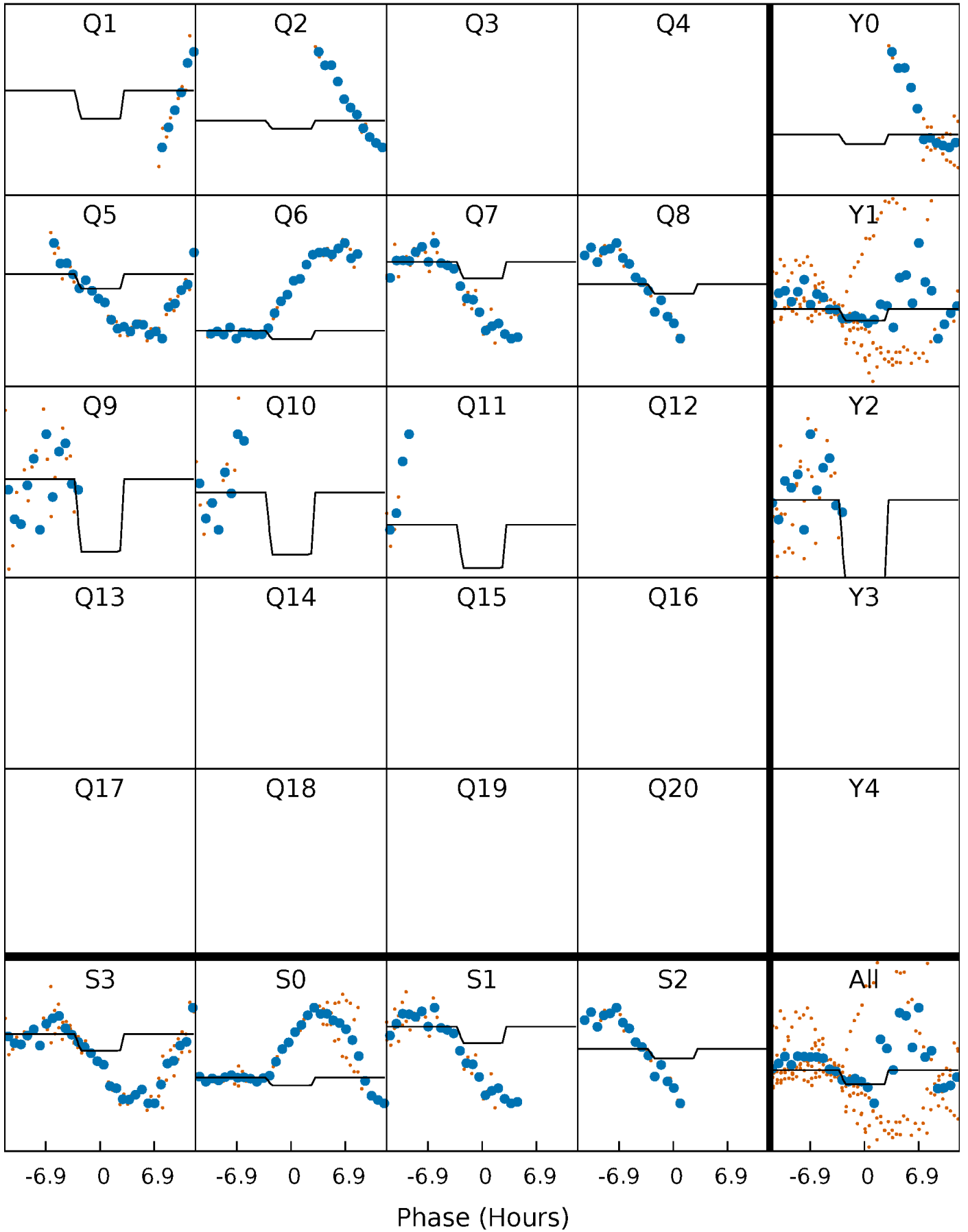
DV Quarter-Phased Transit Curves

TCE 010328476-03 P=104.873442 Days $T_0=141.715761$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

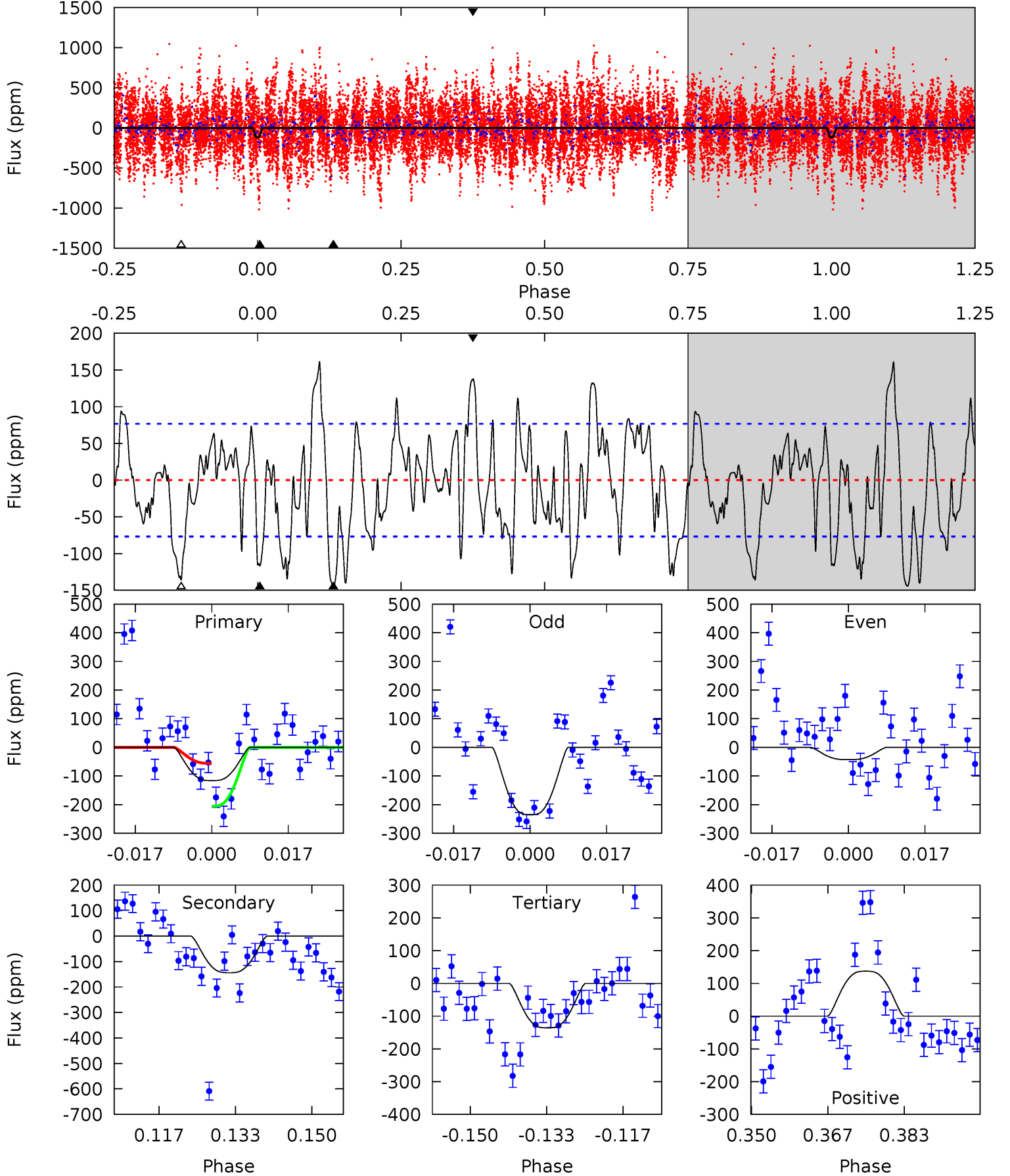
TCE 010328476-03 P=104.865030 Days $T_0=141.662323$ (BKJD)



DV Model-Shift Uniqueness Test

010328476-03, P = 104.873442 Days, E = 36.842319 Days

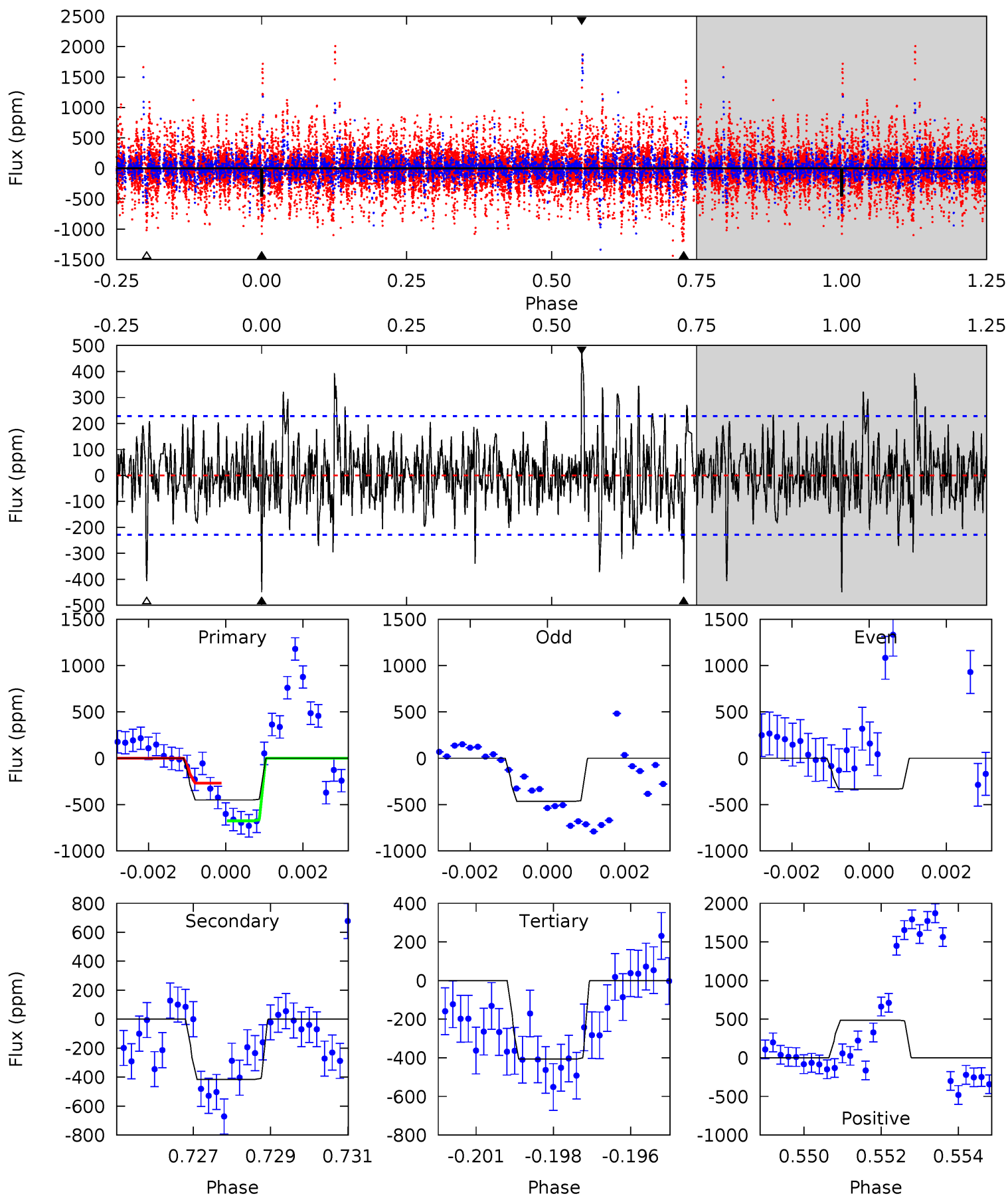
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.47	9.25	8.73	8.82	4.93	2.39	3.85	-1.26	-1.34	0.52	0.44	6.17	-23.1	0.53	4.67



Alt Model-Shift Uniqueness Test

010328476-03, P = 104.865030 Days, E = 36.797293 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.4	9.63	9.42	11.3	5.30	3.04	2.07	1.00	-0.86	0.21	-1.66	1.49	0.35	0.52	0



Stellar Parameters For KIC 010328476

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7270^{+228}_{-304}	$4.235^{+0.090}_{-0.210}$	$-0.040^{+0.200}_{-0.350}$	$1.534^{+0.547}_{-0.235}$	$1.471^{+0.219}_{-0.197}$	$0.574^{+0.228}_{-0.309}$
	+3%/-4%	+2%/-5%	+500%/-875%	+36%/-15%	+15%/-13%	+40%/-54%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 010328476-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-144 ± 16	$4.53^{+0.94}_{-0.62}$	801^{+61}_{-50}	4923^{+282}_{-238}	923^{+321}_{-257}
Alt.	-415 ± 43	$2.33^{+0.57}_{-0.52}$	802^{+66}_{-47}	9524^{+1722}_{-1153}	10188^{+6818}_{-3544}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

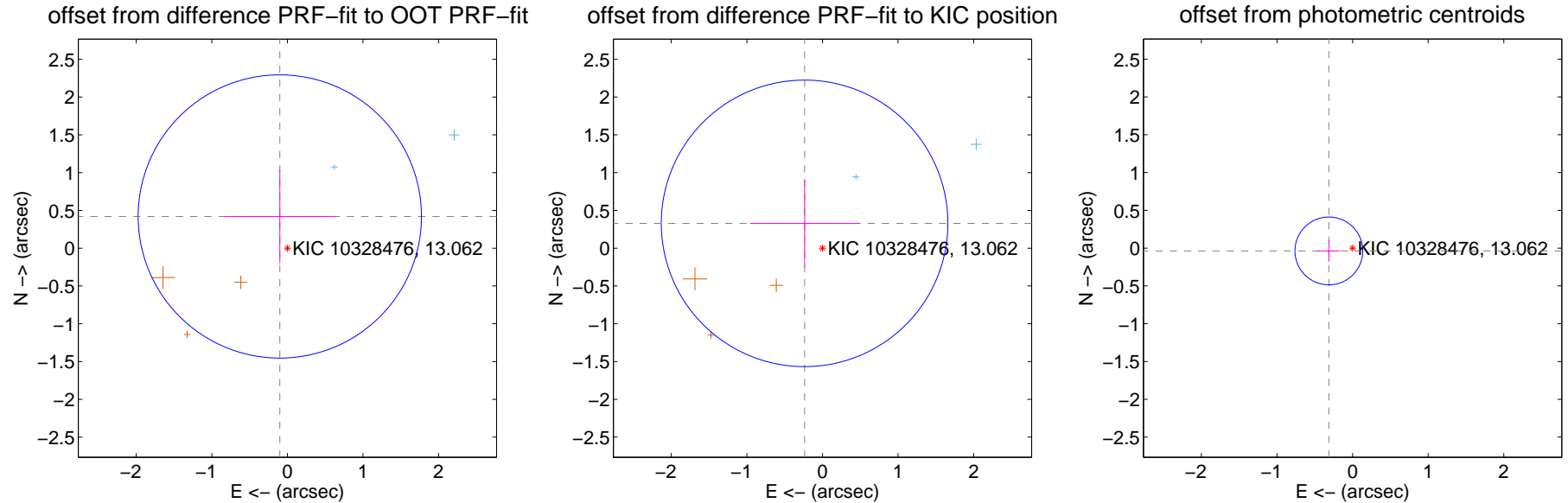
DV Centroid Data

Supplemental centroid analysis for 010328476-03. Kepler magnitude: 13.06. Transit SNR 7.46

There are 2 quarters with good PRF difference image offsets

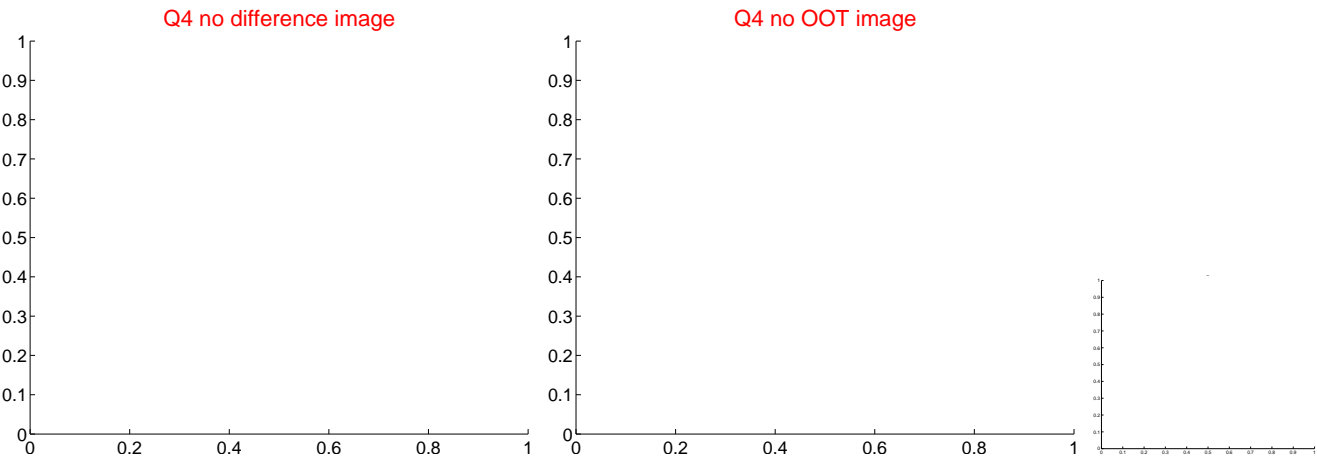
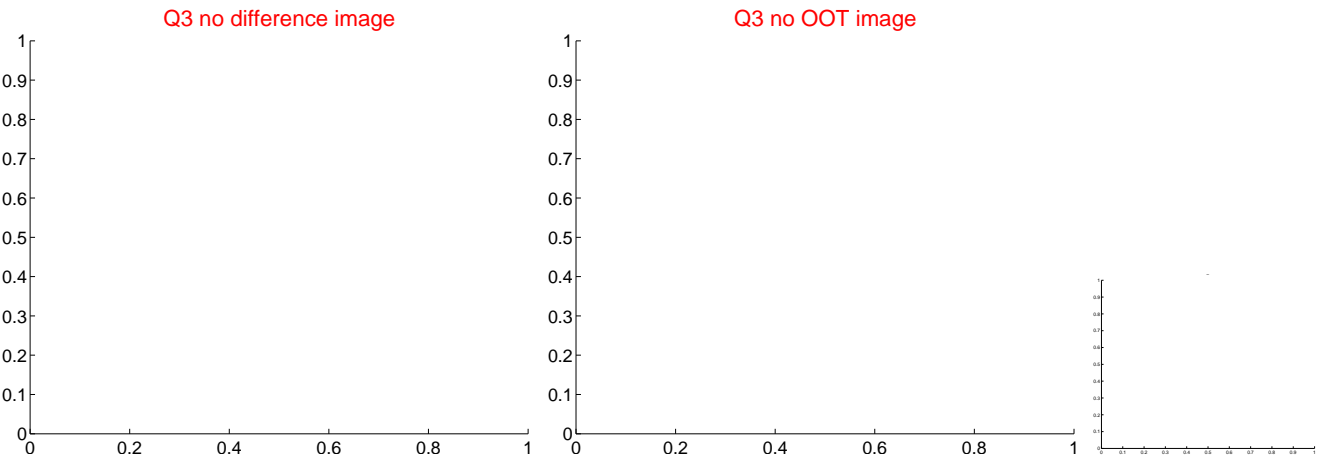
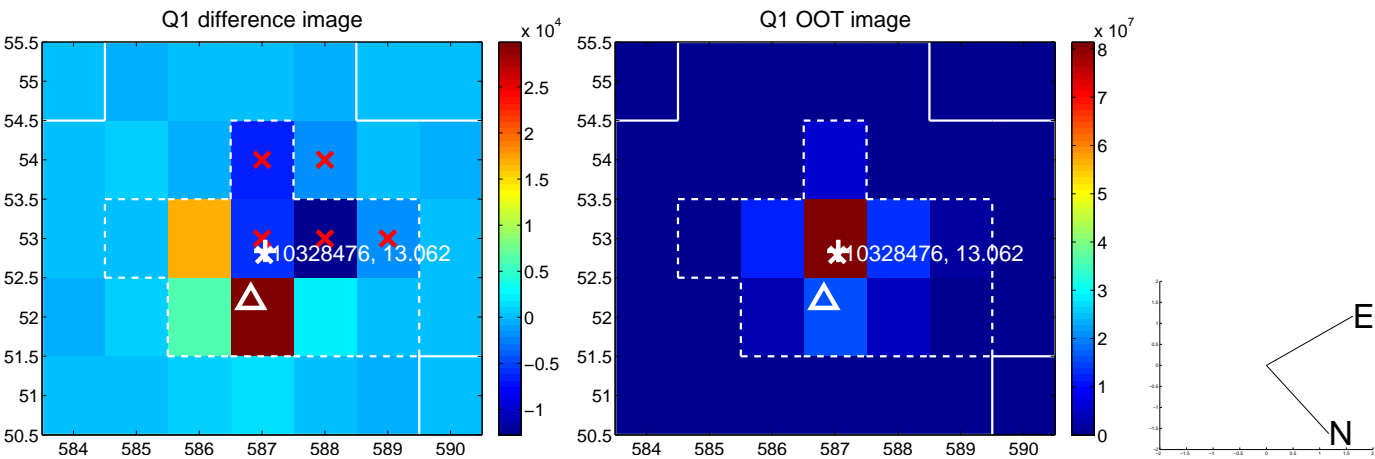
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.432 ± 0.625	0.69	0.100 ± 0.725	0.420 ± 0.619
PRF-fit source offset from KIC position	0.405 ± 0.632	0.64	0.237 ± 0.720	0.329 ± 0.581
photometric centroid source offset	0.32 ± 0.15	2.11	0.31 ± 0.15	-0.04 ± 0.14

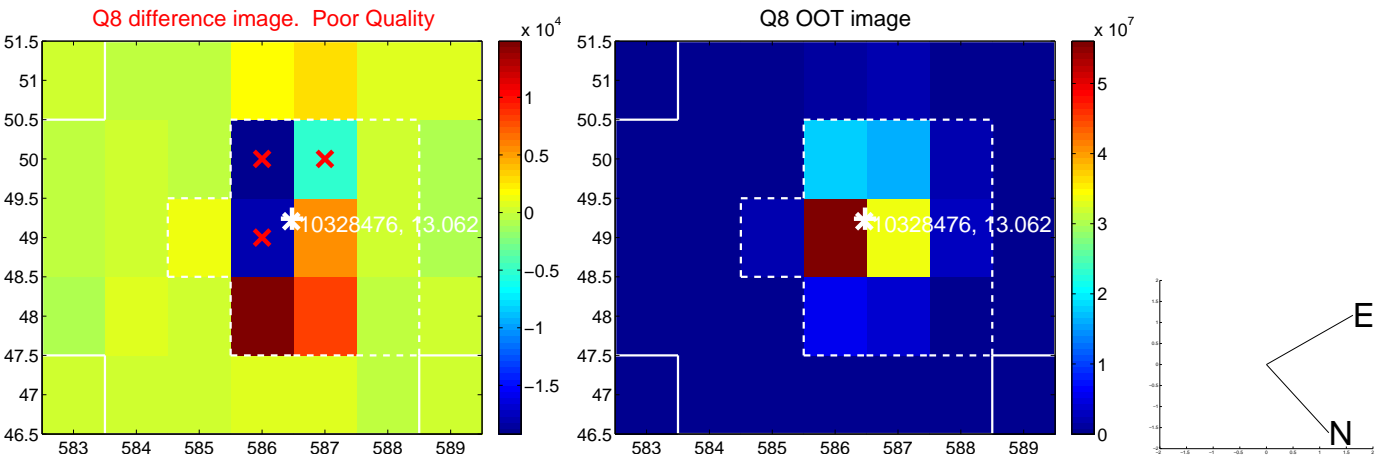
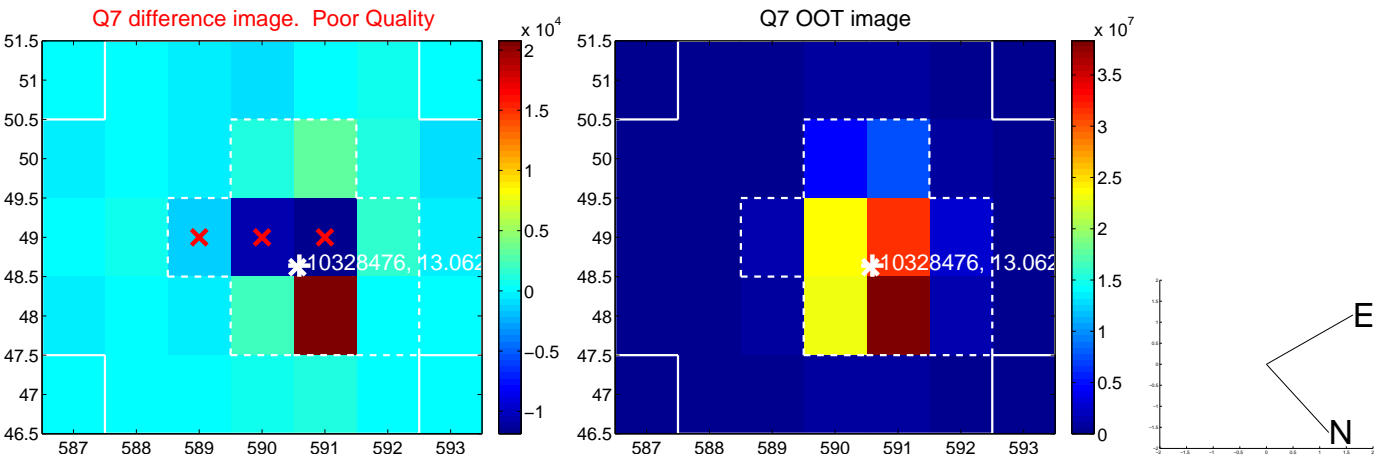
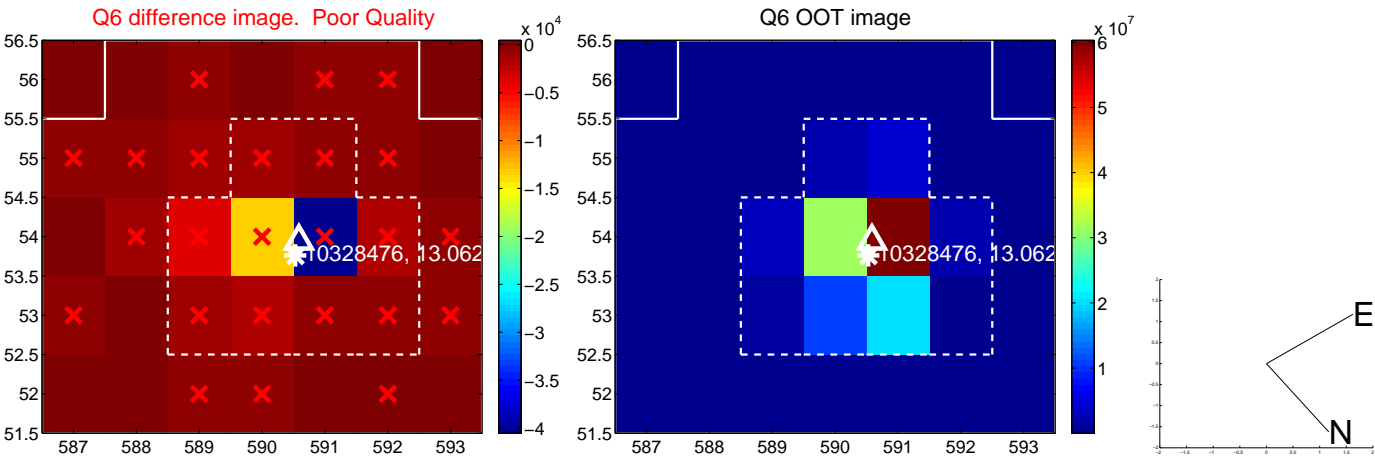
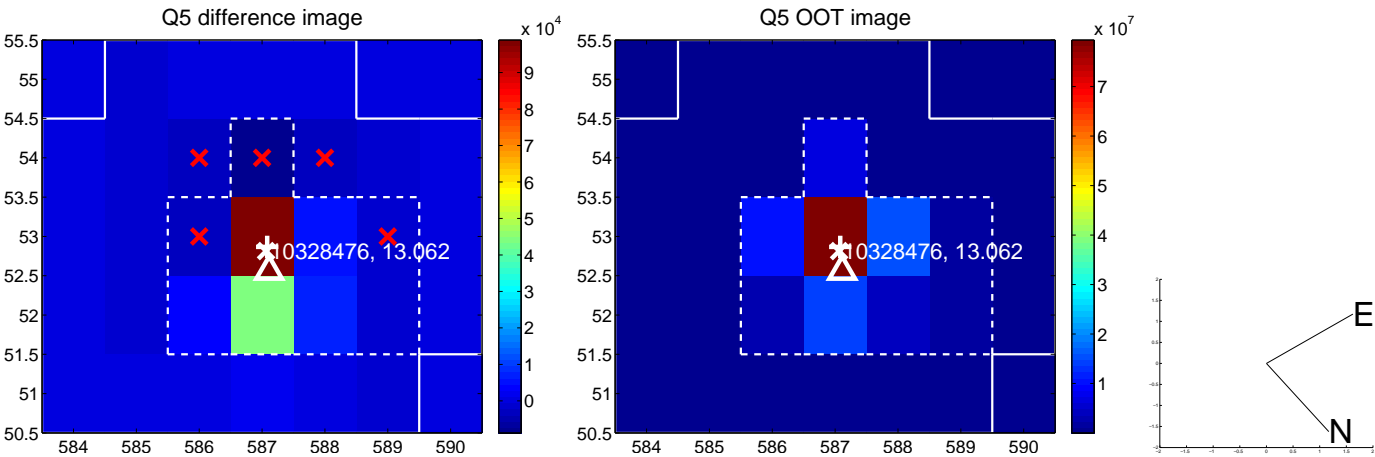


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

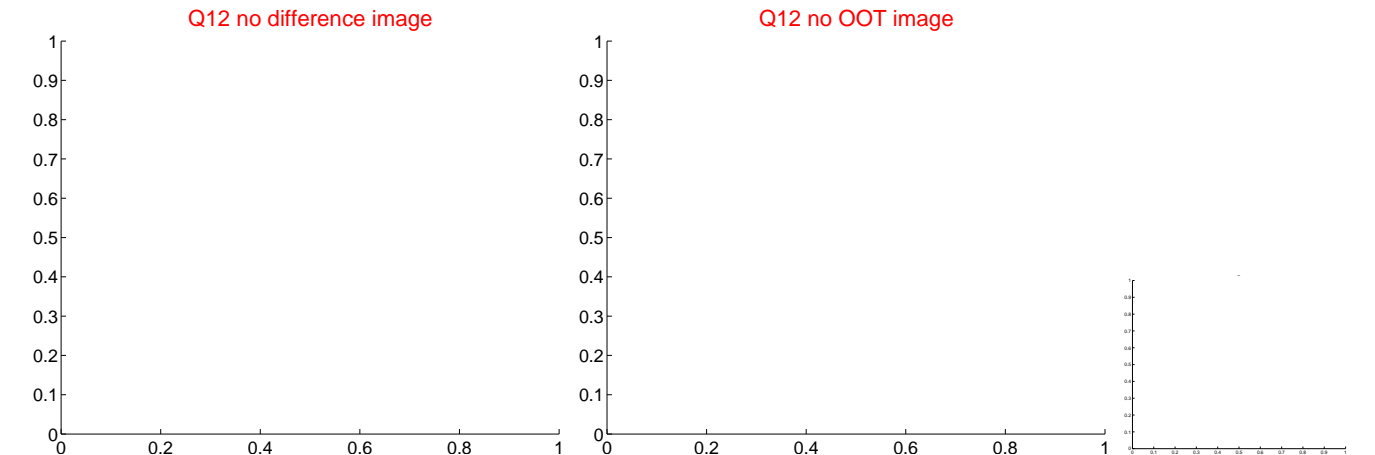
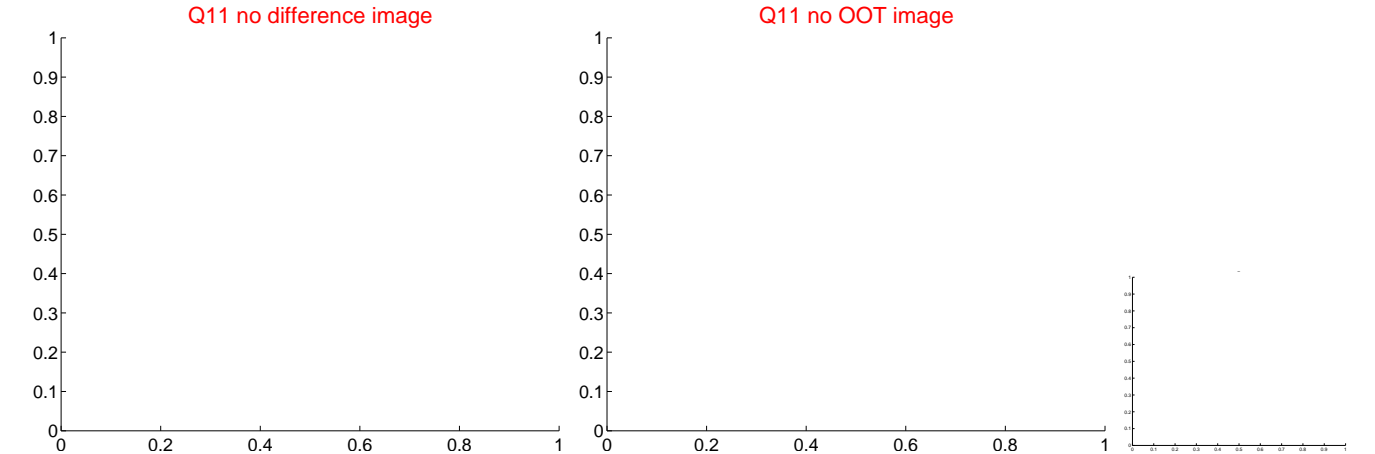
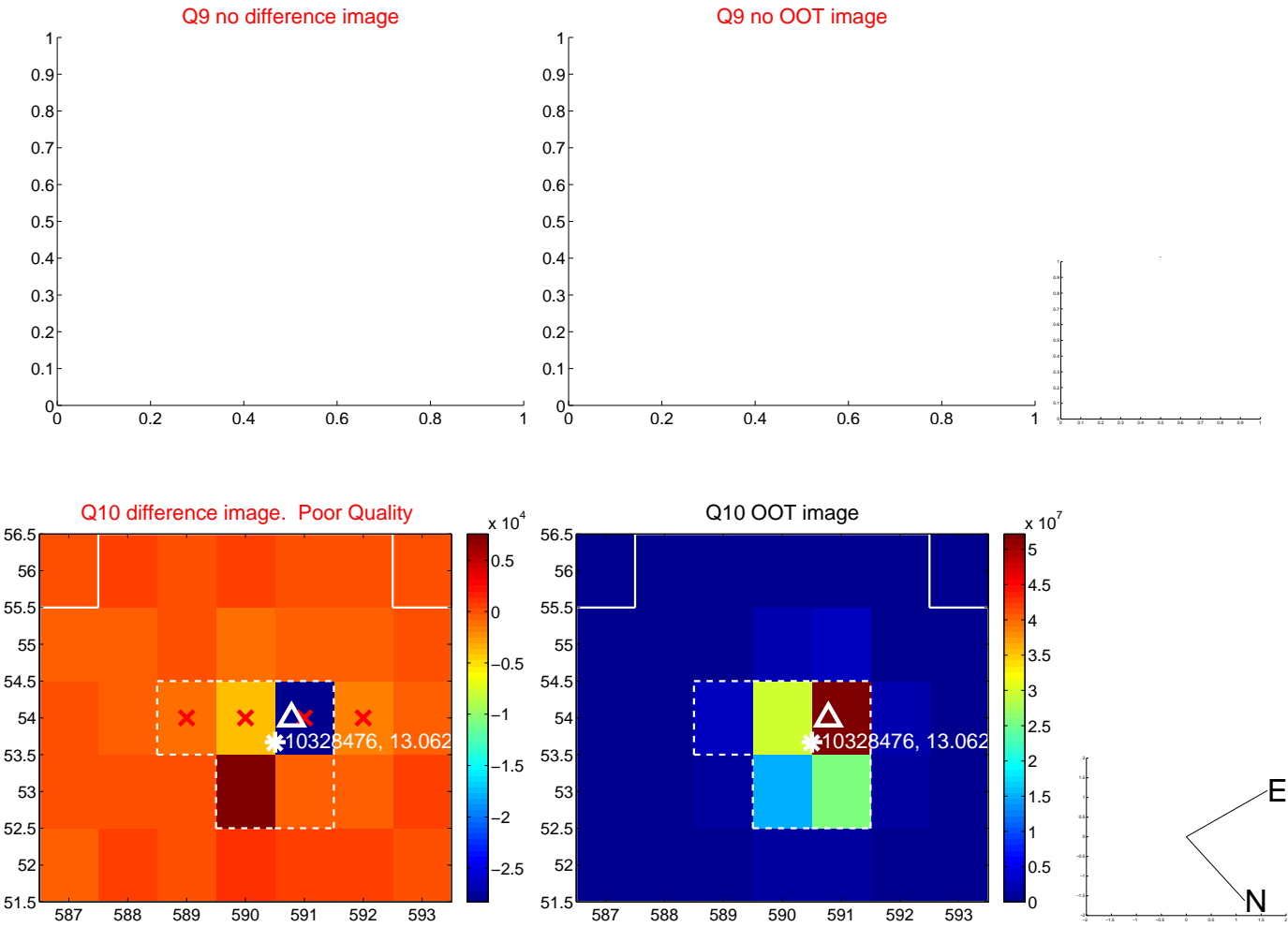
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



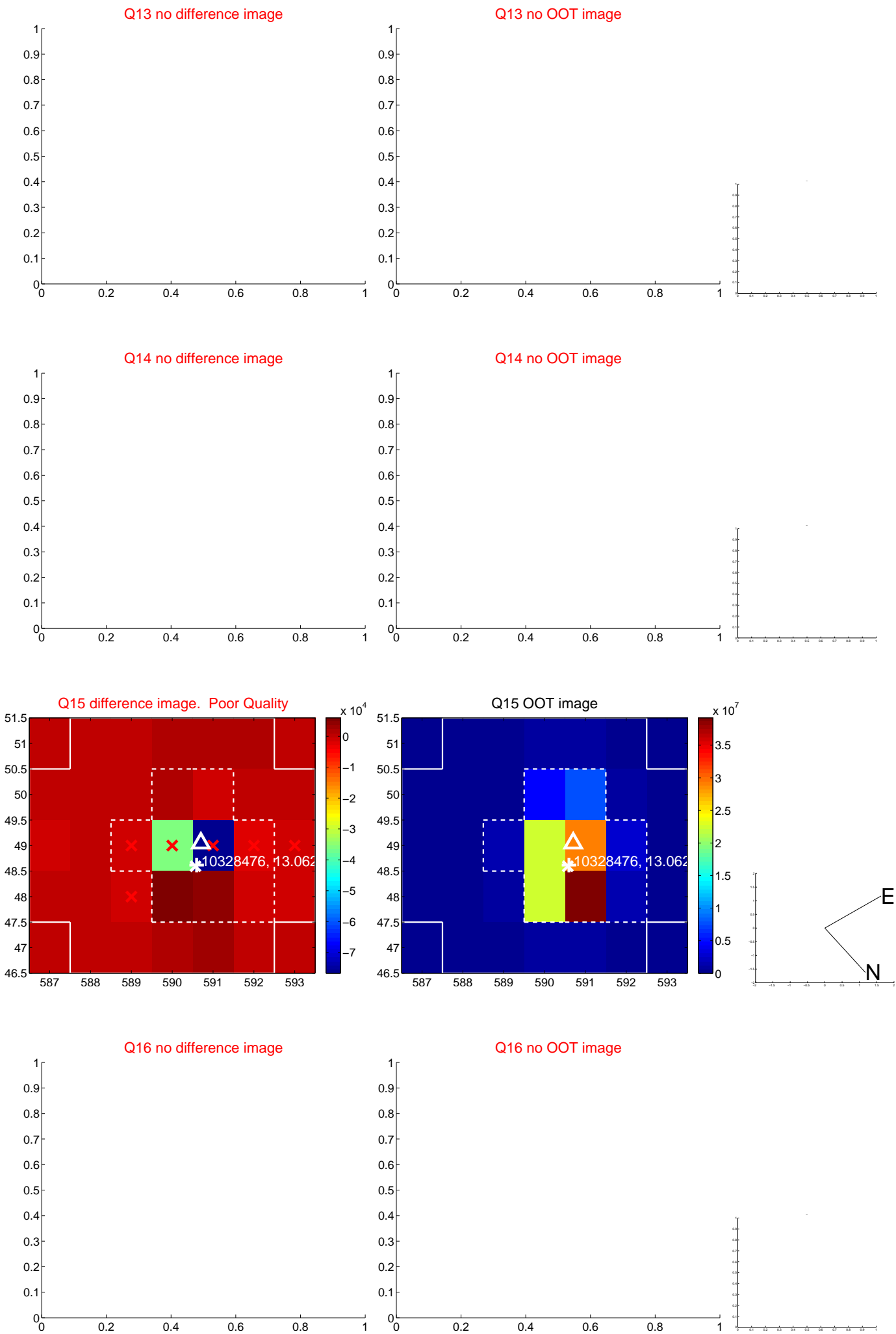
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



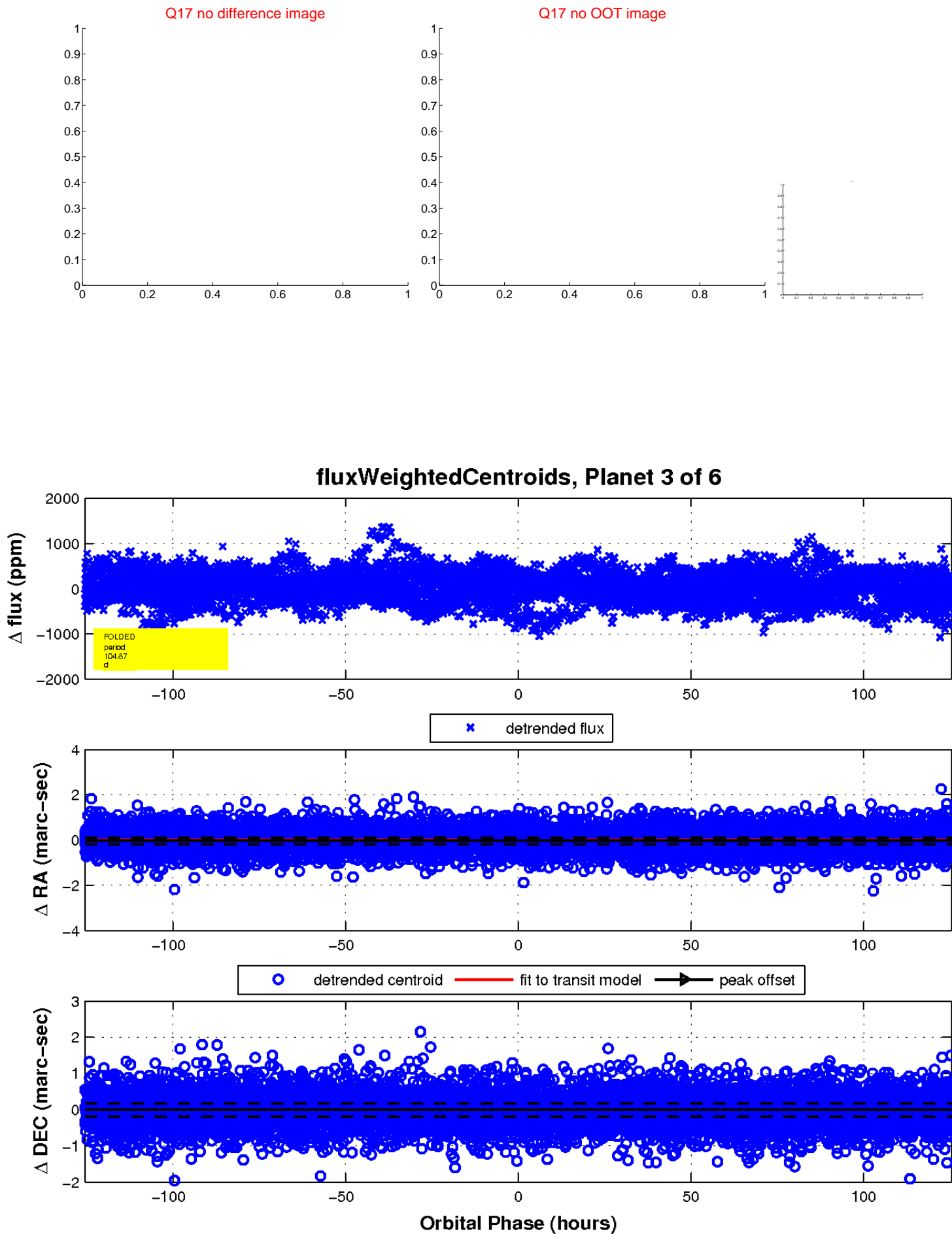
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

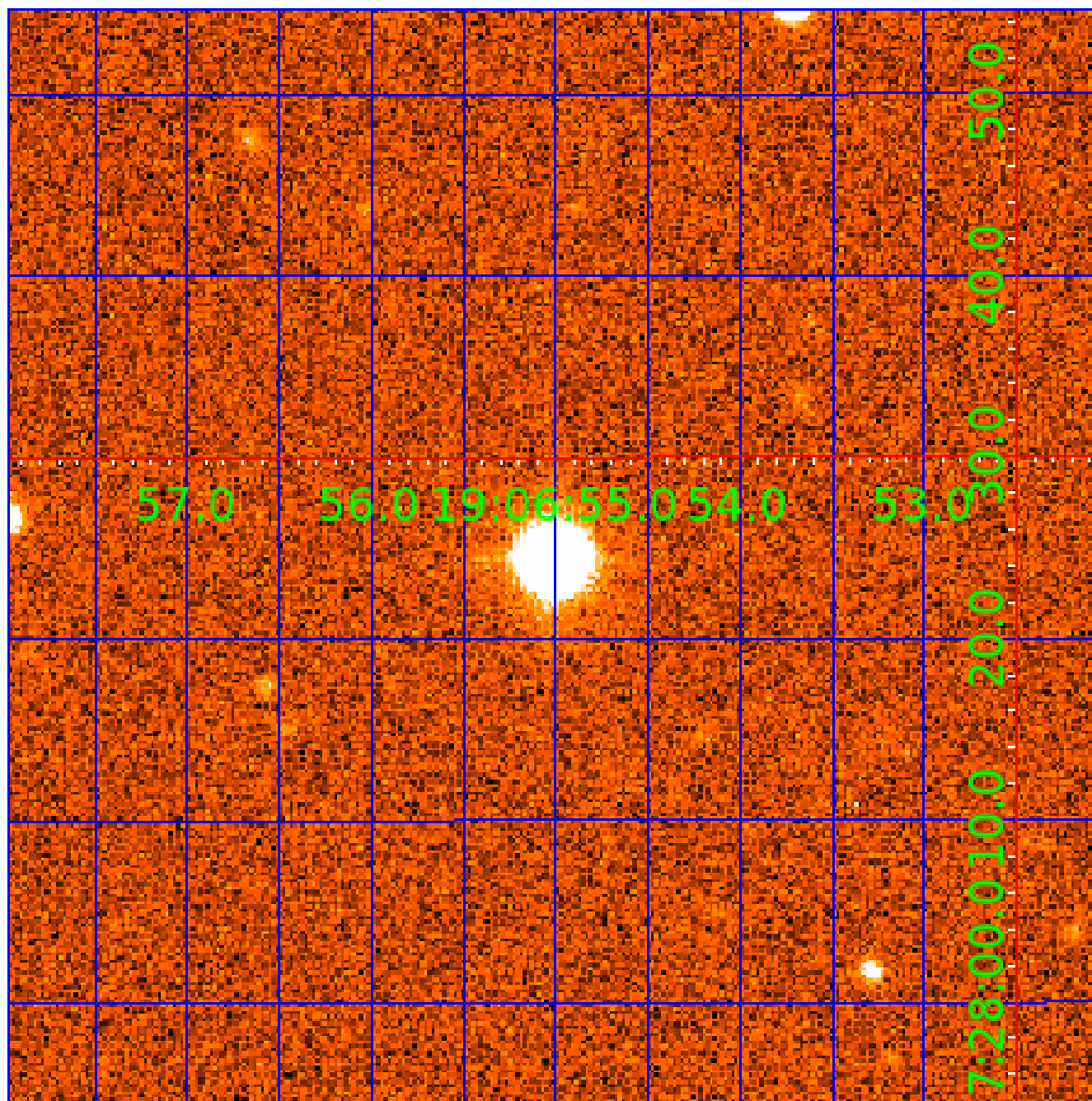


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010328476

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})
010328476-01	OBS	No	3.173124	133.893882	28.0	12.358	9.8	5.6	1.53	7270	0.94	2544.48
010328476-02	OBS	No	3.171969	131.749424	0.0	11.066	10.1	0.0	1.53	7270	0.00	2545.72
010328476-03	OBS	No	104.873442	141.715761	514.2	41.836	15.6	7.5	1.53	7270	4.43	23.99
010328476-05	OBS	No	216.101813	175.647312	392.8	13.258	9.3	7.9	1.53	7270	3.43	9.15
010328476-06	OBS	No	0.528827	131.617899	37.6	5.896	8.2	13.5	1.53	7270	0.95	27743.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010328476-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV
010328476-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—SAME_NTL_PERIOD
010328476-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—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_FEW_DIFFS—HALO_GHOST
010328476-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
010328476-06	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD—CENT_FEW_DIFFS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

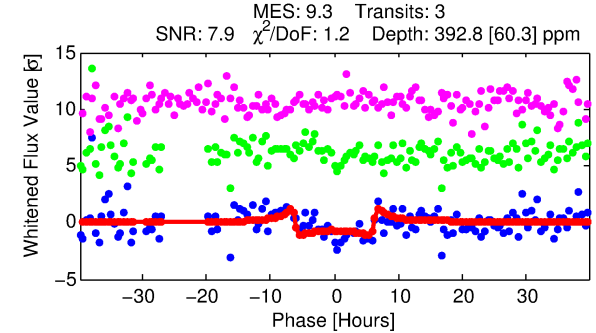
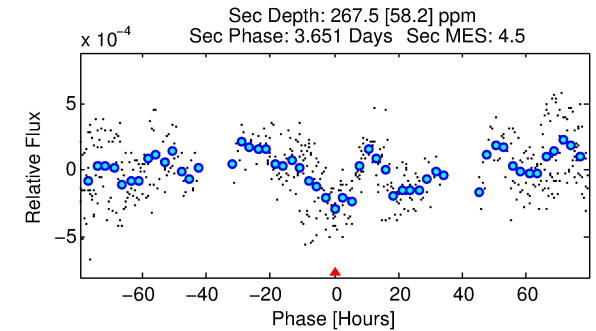
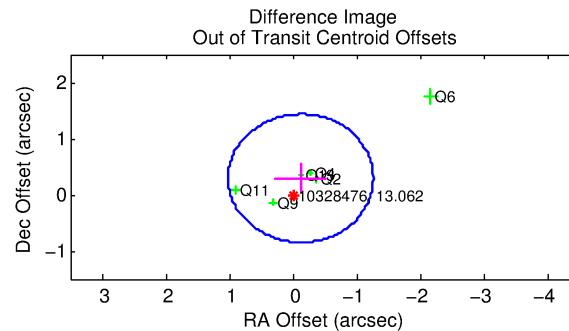
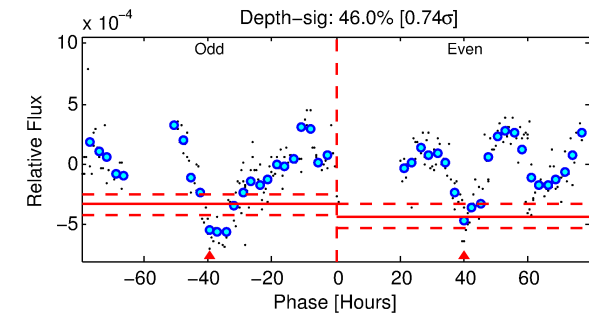
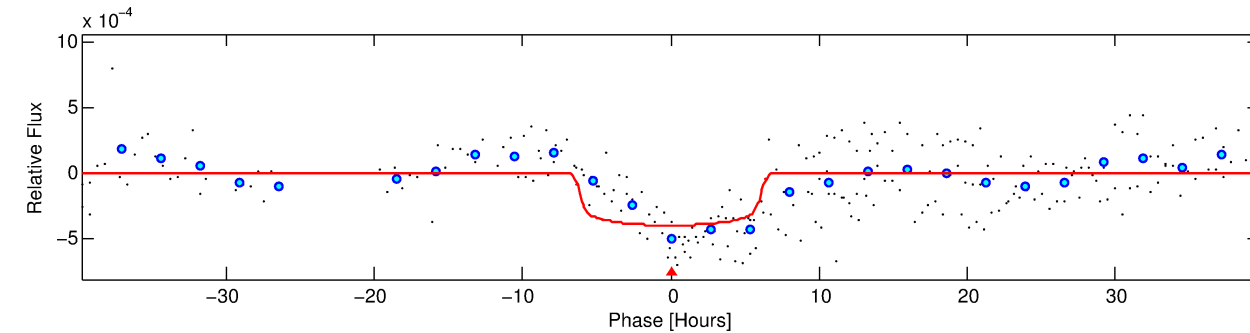
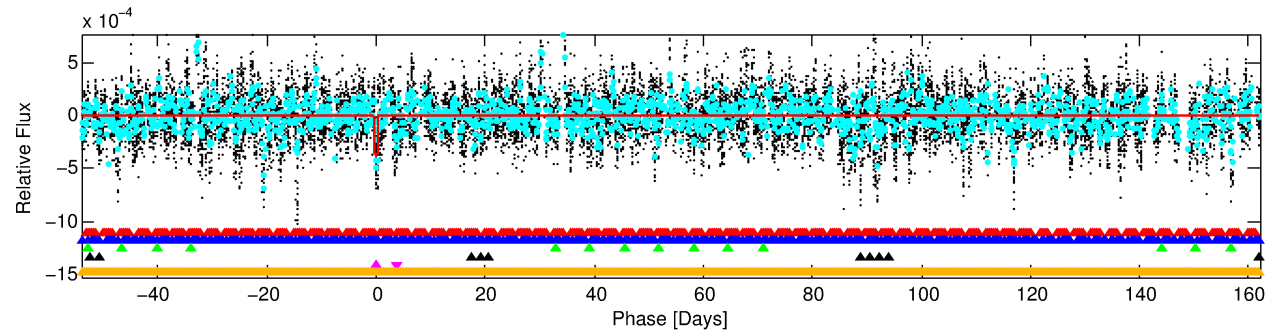
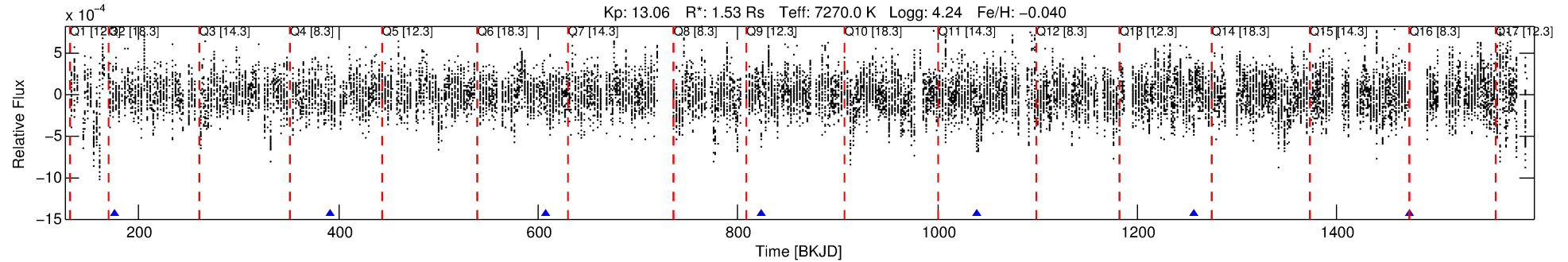
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010328476-05

No Significant Match Found

DV One-Page Summary

KIC: 10328476 Candidate: 5 of 6 Period: 216.102 d



DV Fit Results:

Period = 216.10181 [0.01456] d
Epoch = 175.6473 [0.0601] BKJD
Rp/R* = 0.0205 [0.0026]
a/R* = 69.10 [38.36]
b = 0.86 [0.17]
Seff = 9.15 [3.97]
Teq = 443 [48] K
Rp = 3.43 [1.30] Re
a = 0.8023 [0.2304] AU
Ag = 8048.14 [4180.70] [1.92 σ]
Teffp = 6494 [602] K [10.02 σ]

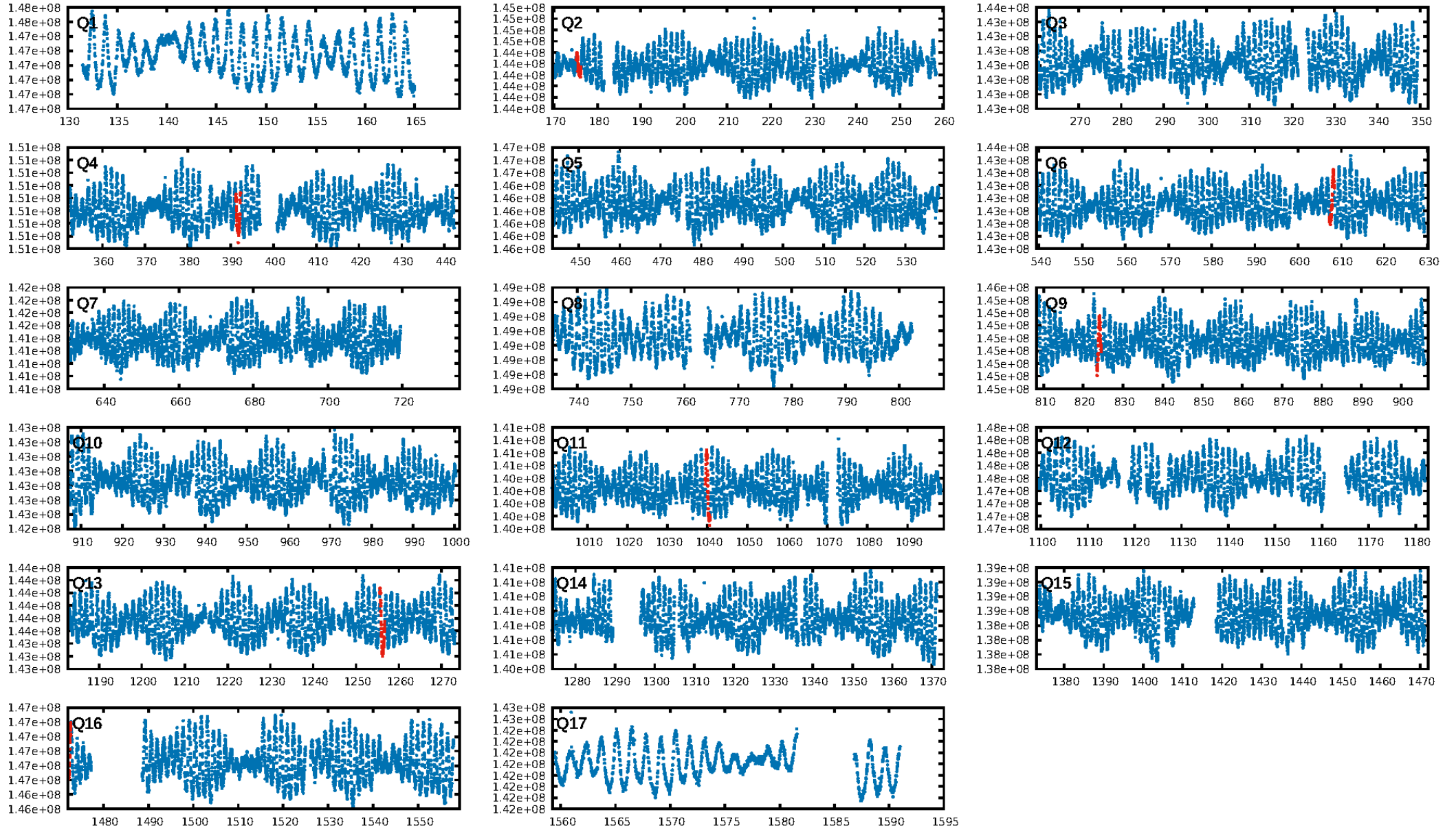
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [110.47 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 32.1%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -4.666
Centroid-sig: 1.9%
Centroid-so: 0.601 arcsec [1.60 σ]
OotOffset-rm: 0.317 arcsec [0.83 σ]
KicOffset-rm: 0.231 arcsec [0.76 σ]
OotOffset-st: 2/1/1/2 [6]
KicOffset-st: 2/1/1/2 [6]
DiffImageQuality-fgm: 0.50 [3/6]
DiffImageOverlap-fno: 0.00 [0/6]

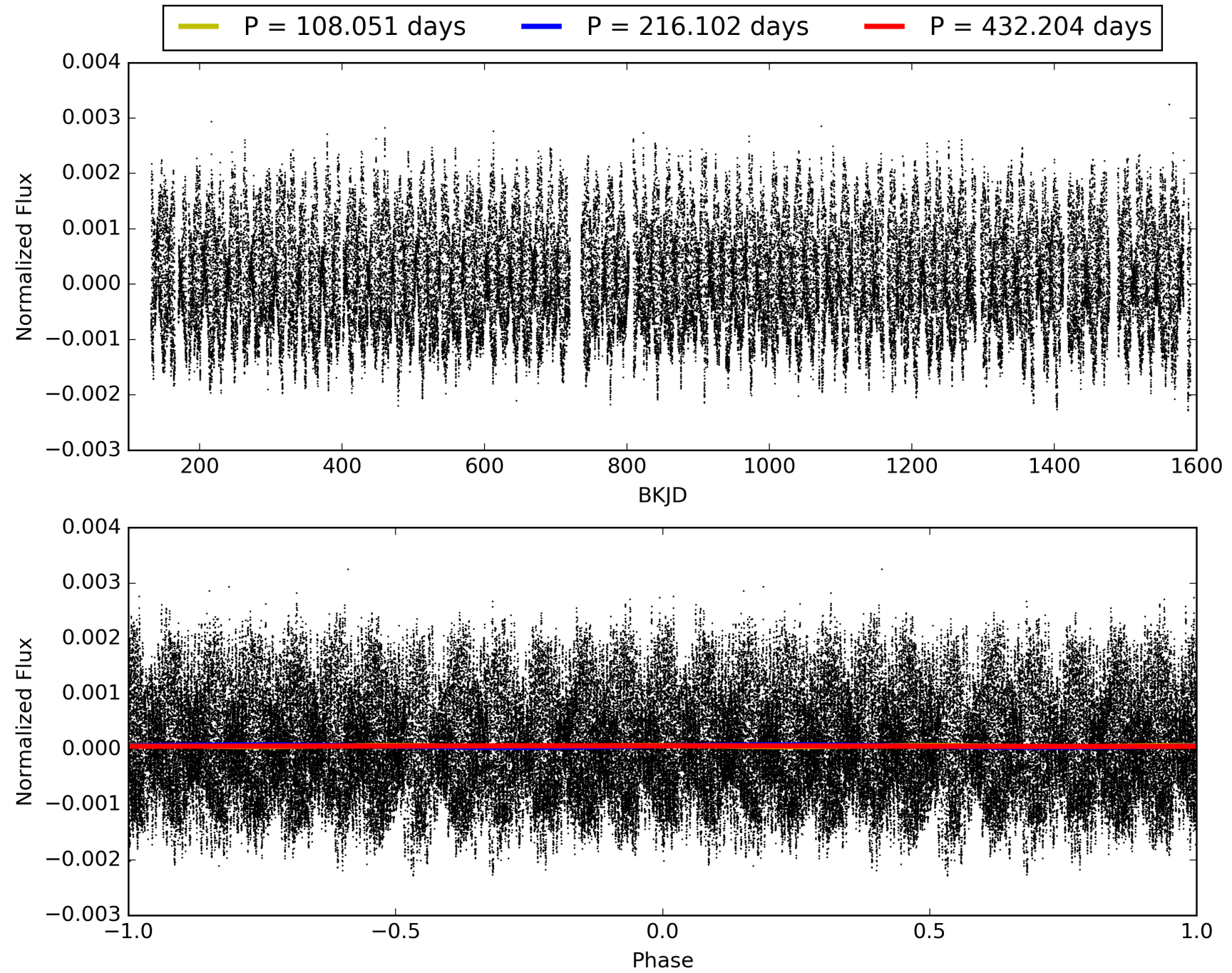
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:04:00 Z

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

TCE 010328476-05, PDC Light Curves

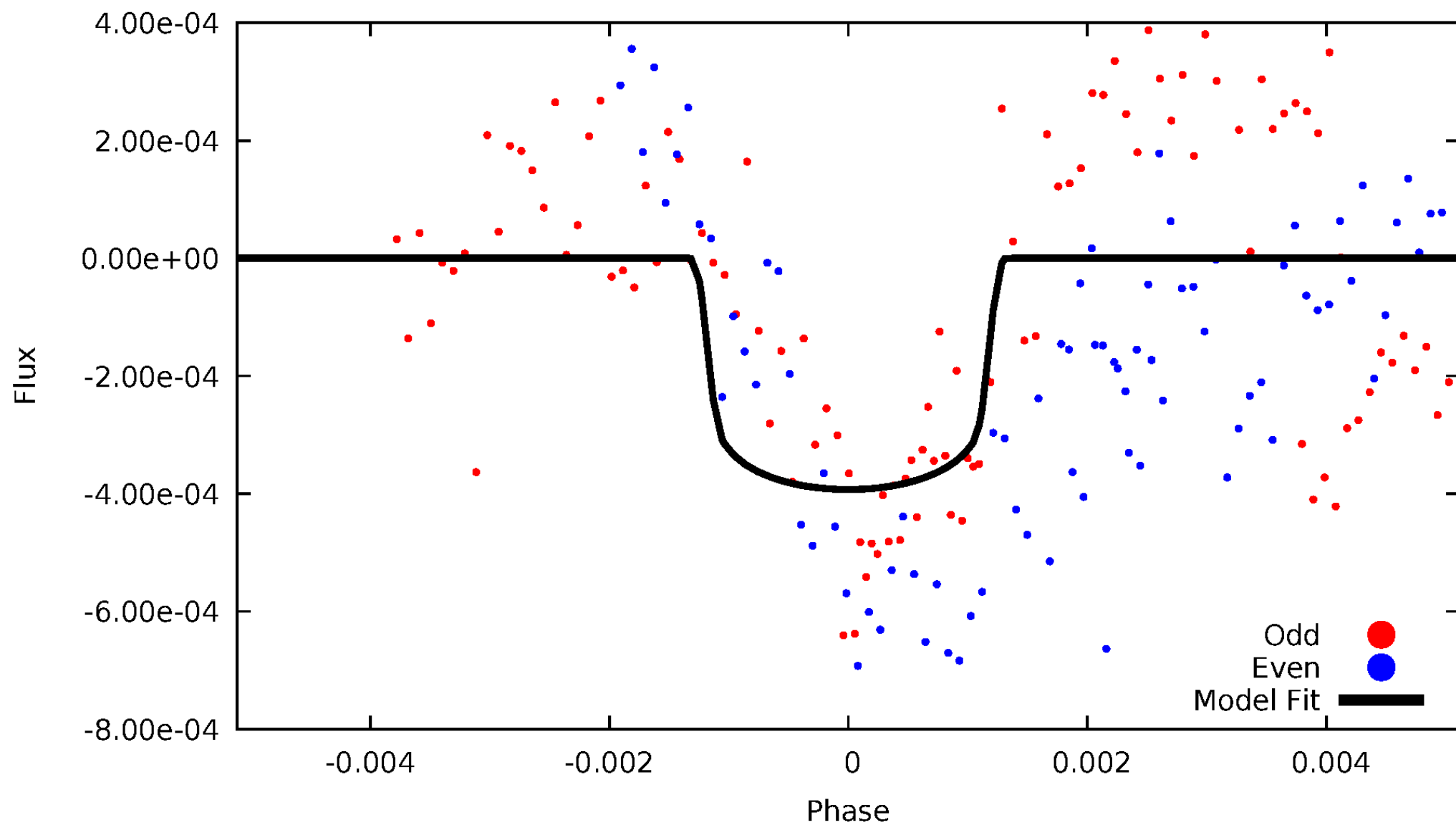


TCE 010328476-05



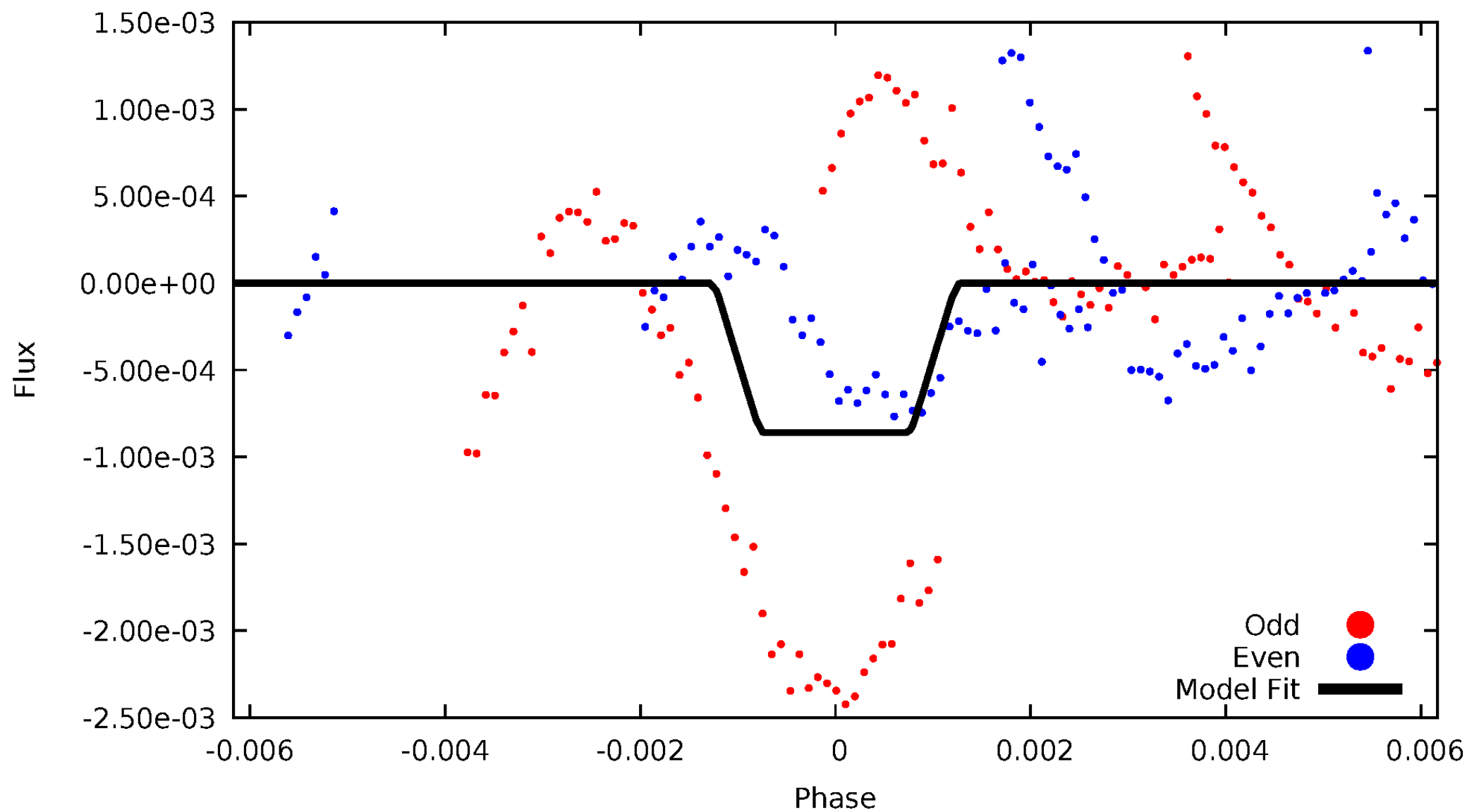
DV Odd/Even

TCE 010328476-05



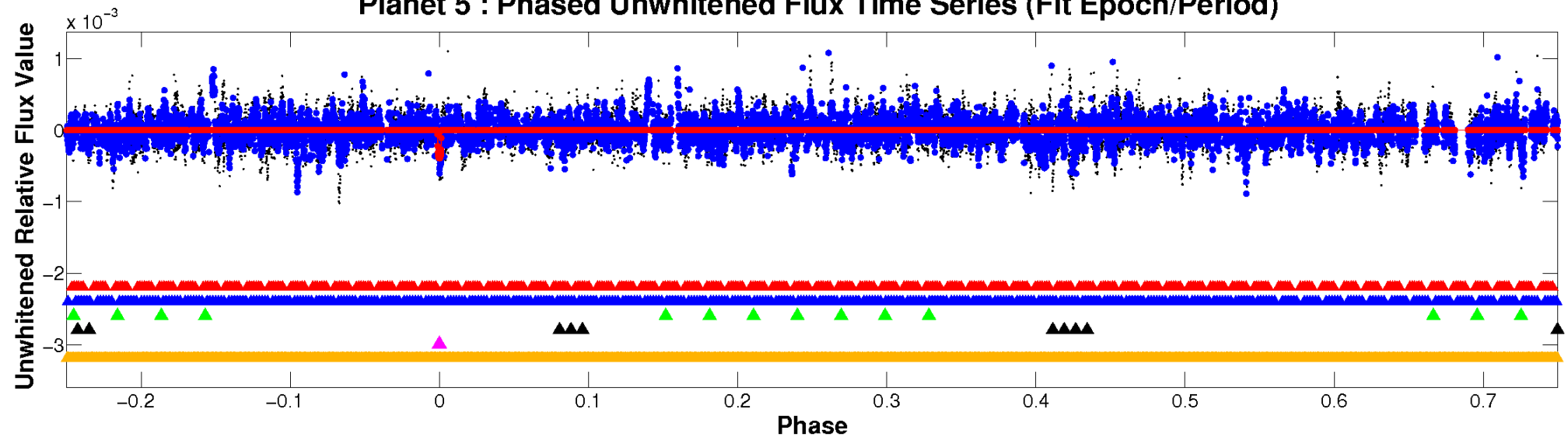
ALT Odd/Even

TCE 010328476-05

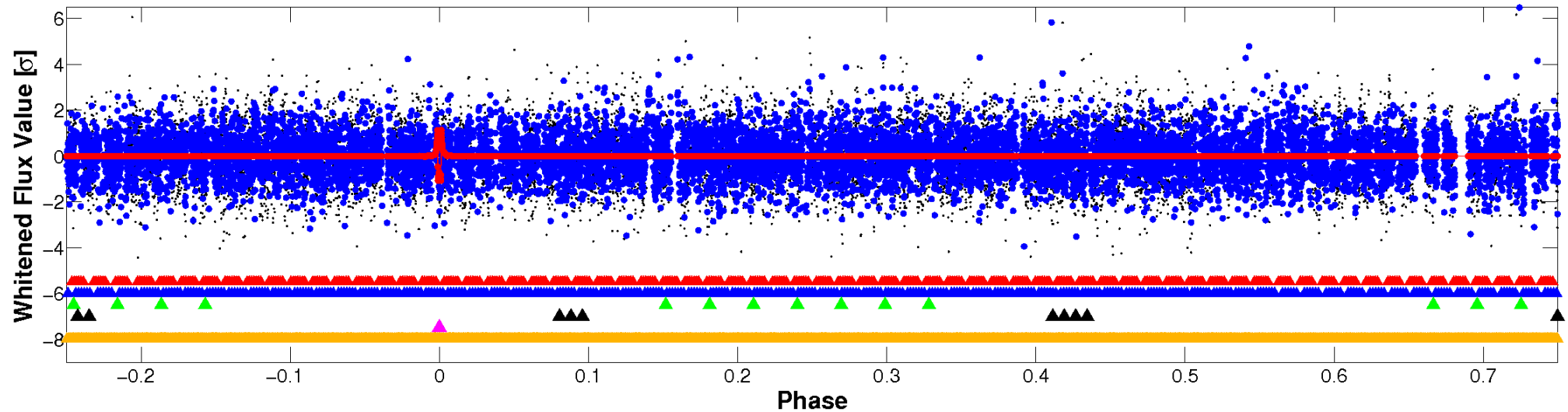


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

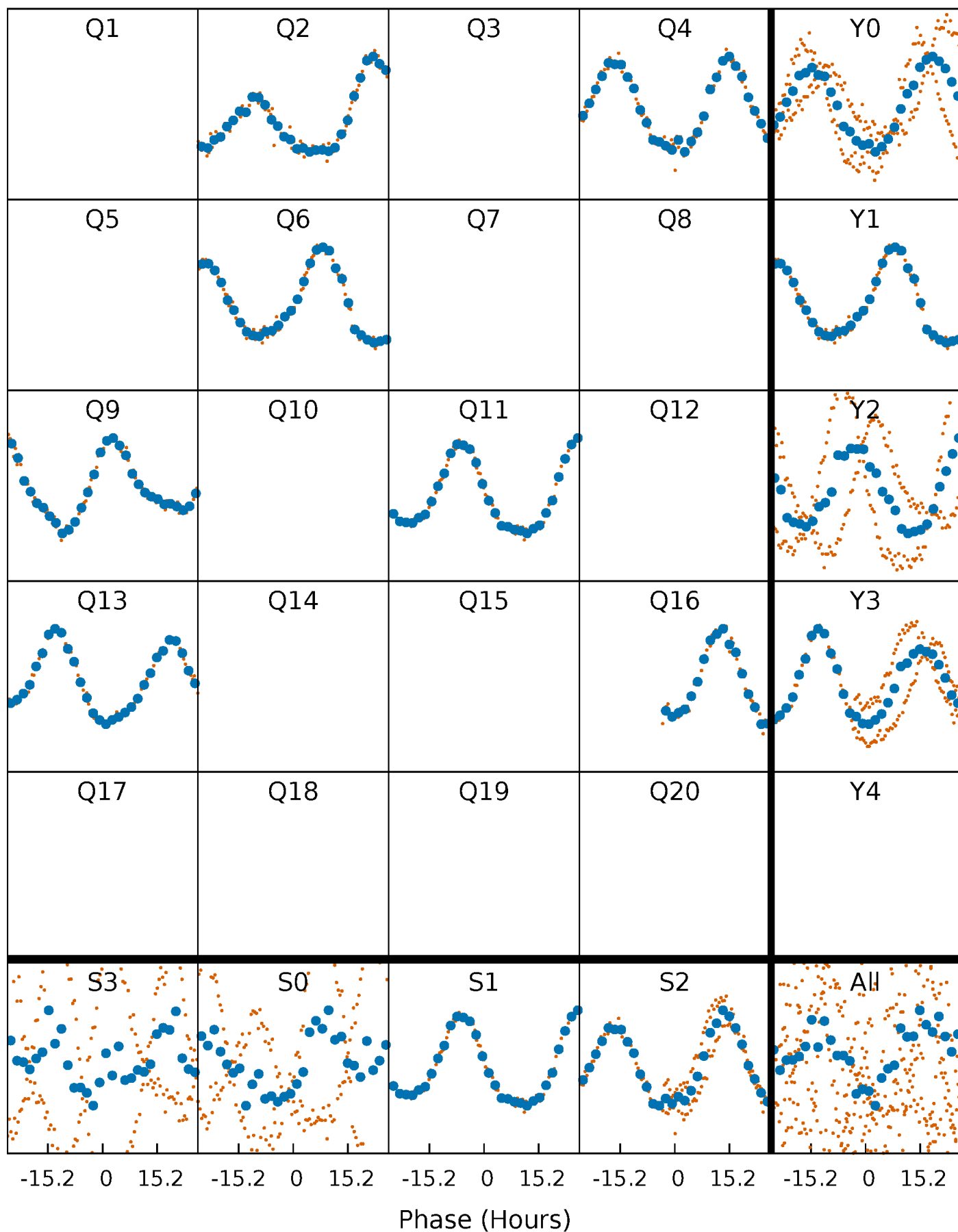


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



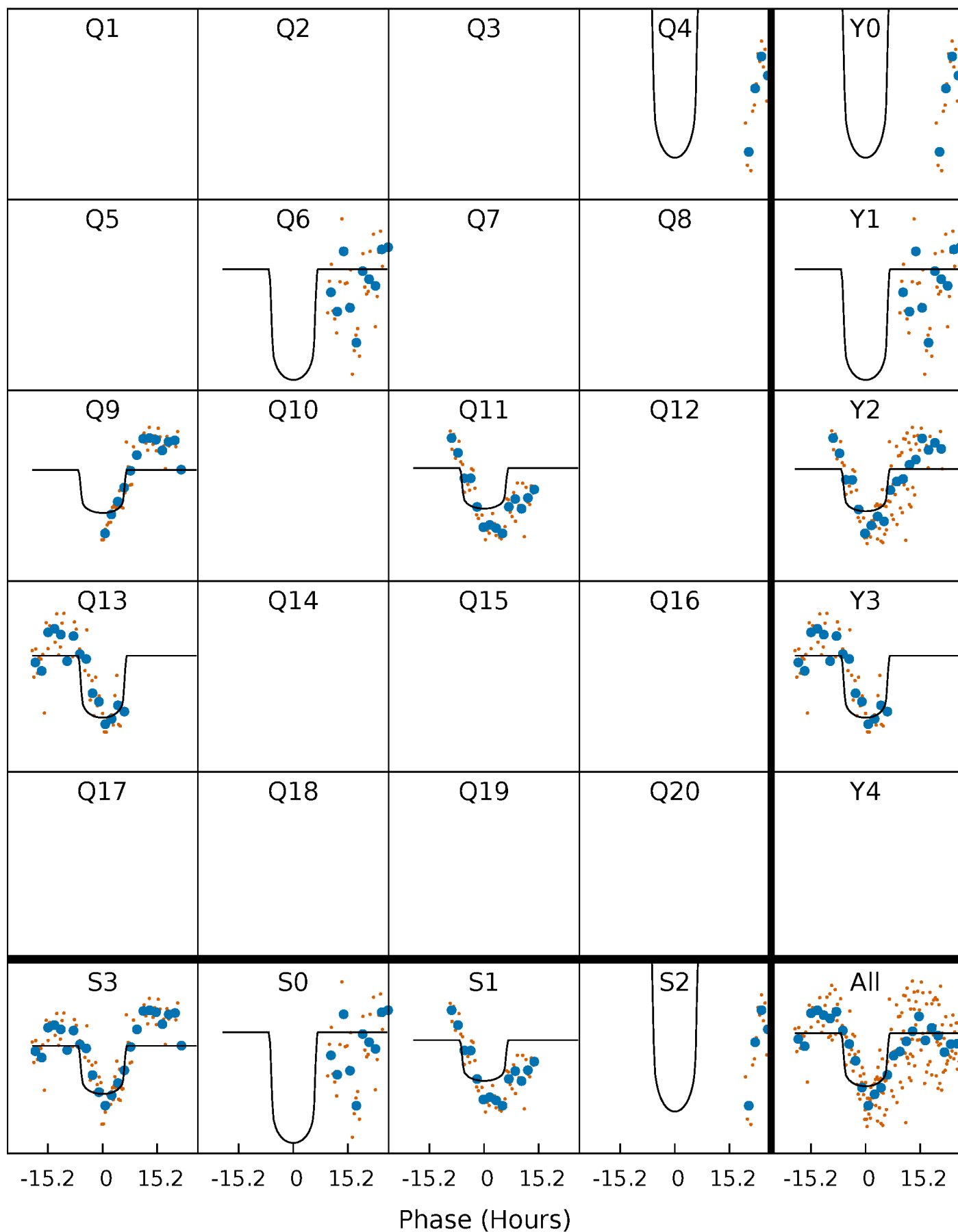
PDC Quarter-Phased Transit Curves

TCE 010328476-05 $P=216.101813$ Days $T_0=175.647312$ (BKJD)



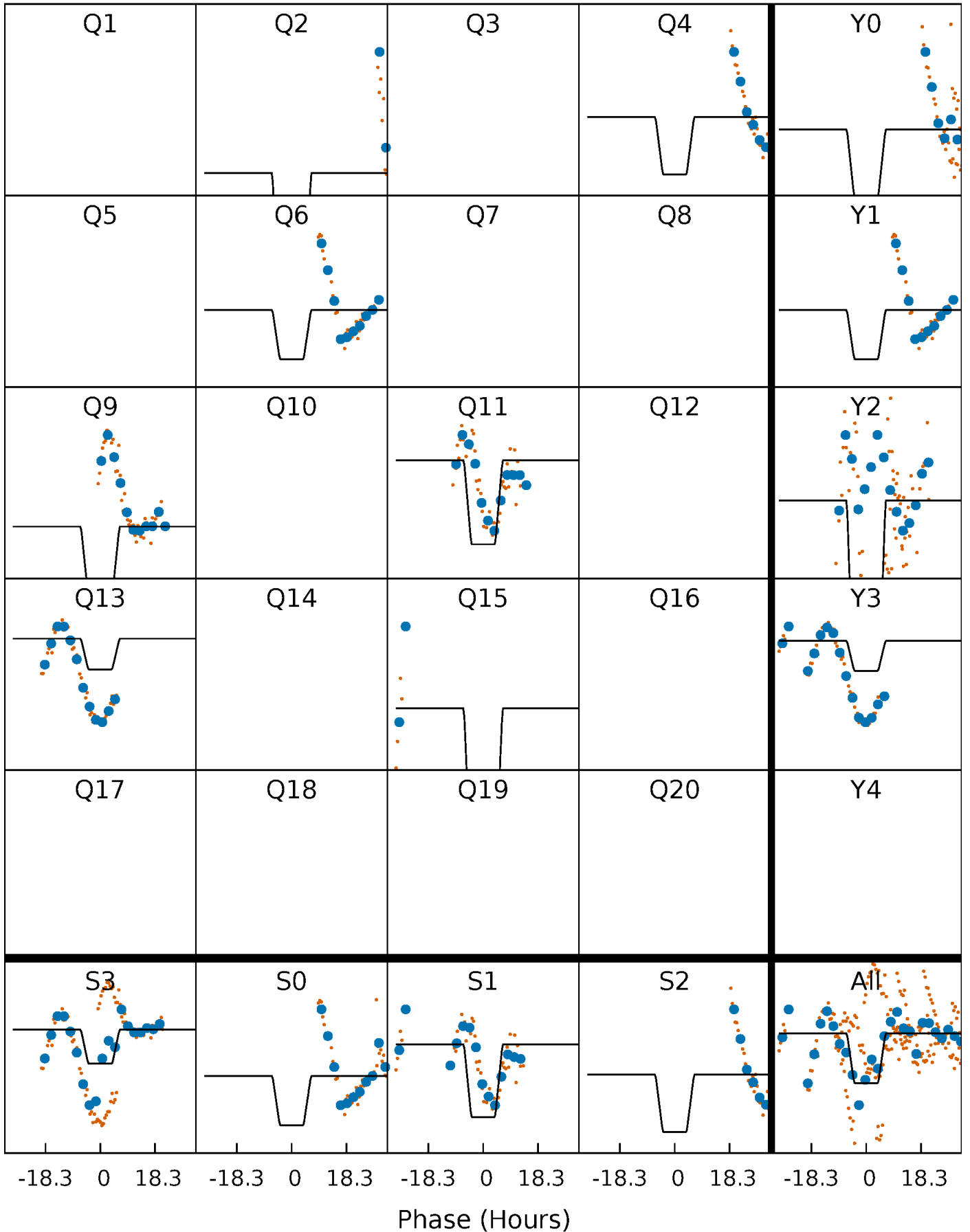
DV Quarter-Phased Transit Curves

TCE 010328476-05 $P=216.101813$ Days $T_0=175.647312$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

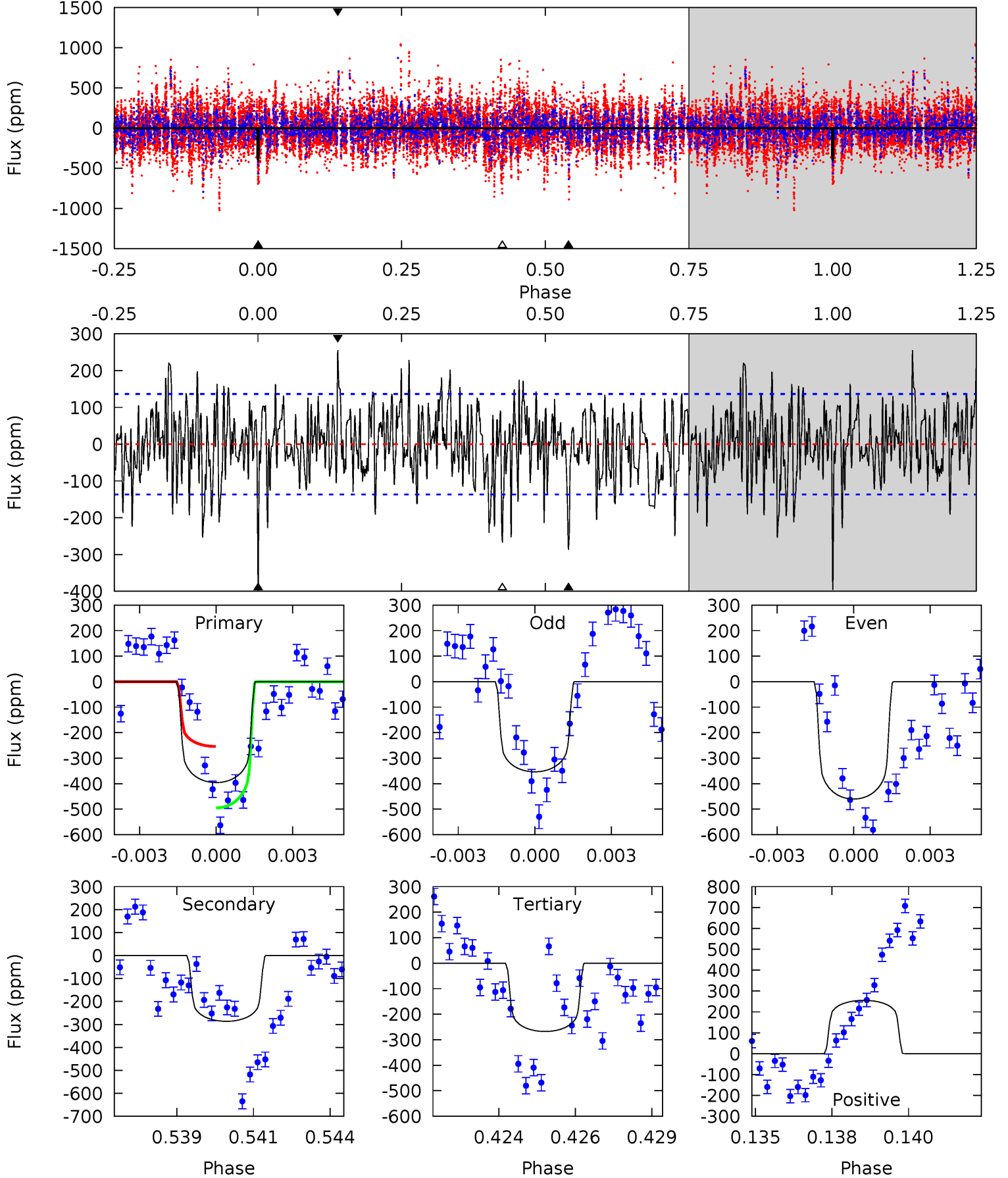
TCE 010328476-05 $P=216.091708$ Days $T_0=175.696977$ (BKJD)



DV Model-Shift Uniqueness Test

010328476-05, P = 216.101813 Days, E = 175.647312 Days

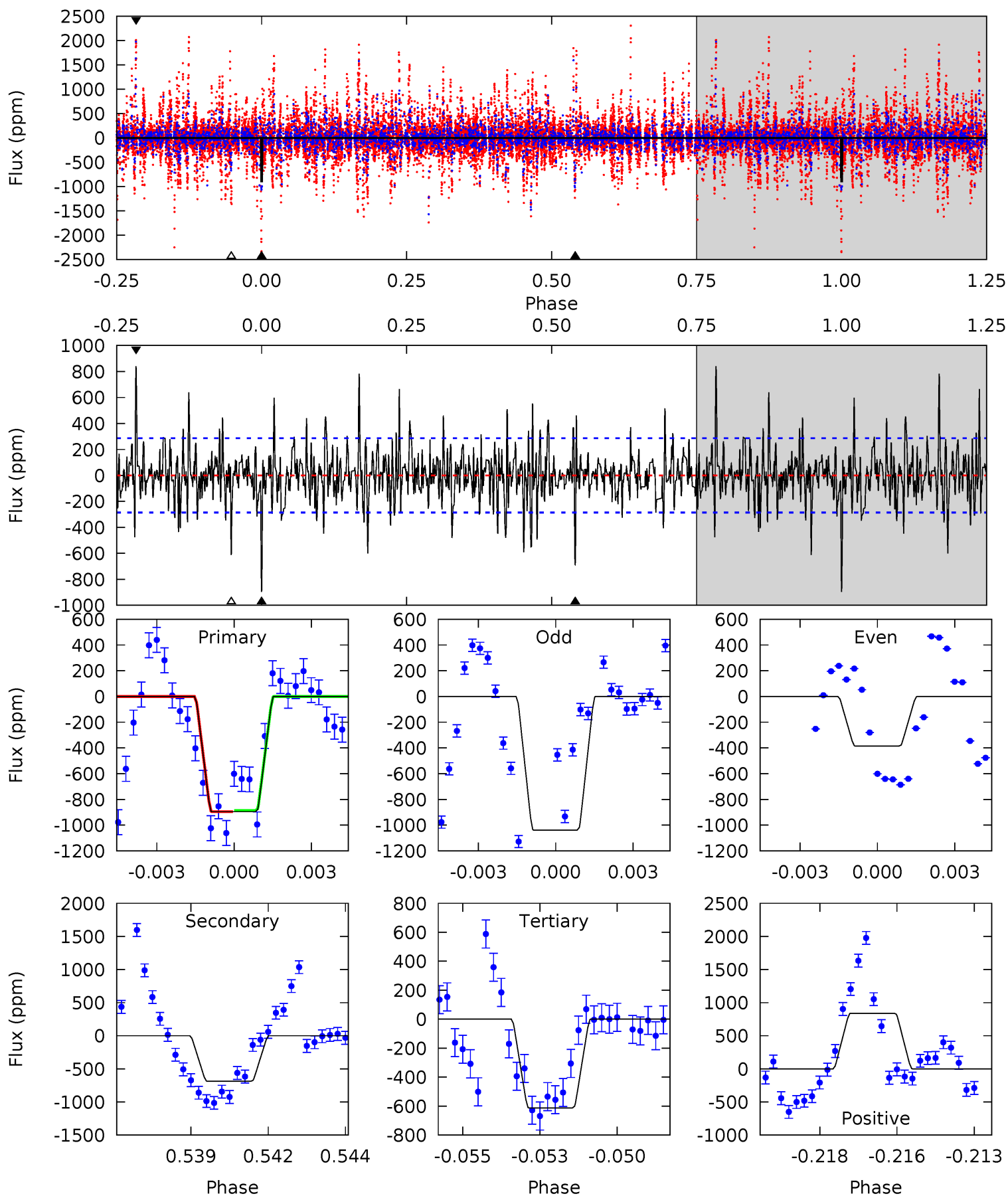
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.3	11.1	10.4	9.88	5.28	3.02	3.14	4.95	5.43	0.73	1.21	2.02	0.88	0.39	4.59



Alt Model-Shift Uniqueness Test

010328476-05, P = 216.091708 Days, E = 175.696977 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.5	12.7	11.3	15.5	5.29	3.02	2.77	5.23	1.03	1.39	-2.81	6.91	1.36	0.48	0.08



Stellar Parameters For KIC 010328476

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7270^{+228}_{-304}	$4.235^{+0.090}_{-0.210}$	$-0.040^{+0.200}_{-0.350}$	$1.534^{+0.547}_{-0.235}$	$1.471^{+0.219}_{-0.197}$	$0.574^{+0.228}_{-0.309}$
	+3%/-4%	+2%/-5%	+500%/-875%	+36%/-15%	+15%/-13%	+40%/-54%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 010328476-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-286 ± 26	$3.57^{+0.69}_{-0.57}$	628^{+51}_{-37}	6517^{+505}_{-439}	7821^{+3216}_{-2138}
Alt.	-688 ± 54	$5.06^{+0.91}_{-0.65}$	630^{+50}_{-36}	6817^{+438}_{-399}	9297^{+2957}_{-2484}

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 $A_{obs} \gg 1.0$

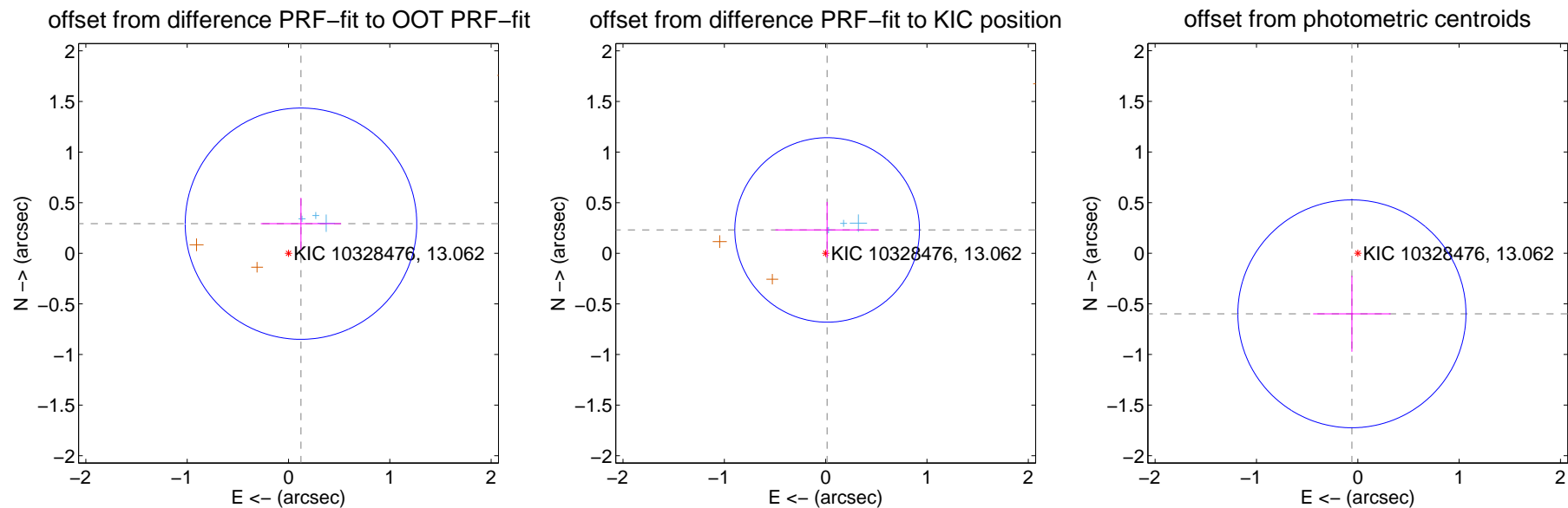
DV Centroid Data

Supplemental centroid analysis for 010328476-05. Kepler magnitude: 13.06. Transit SNR 7.88

There are 3 quarters with good PRF difference image offsets

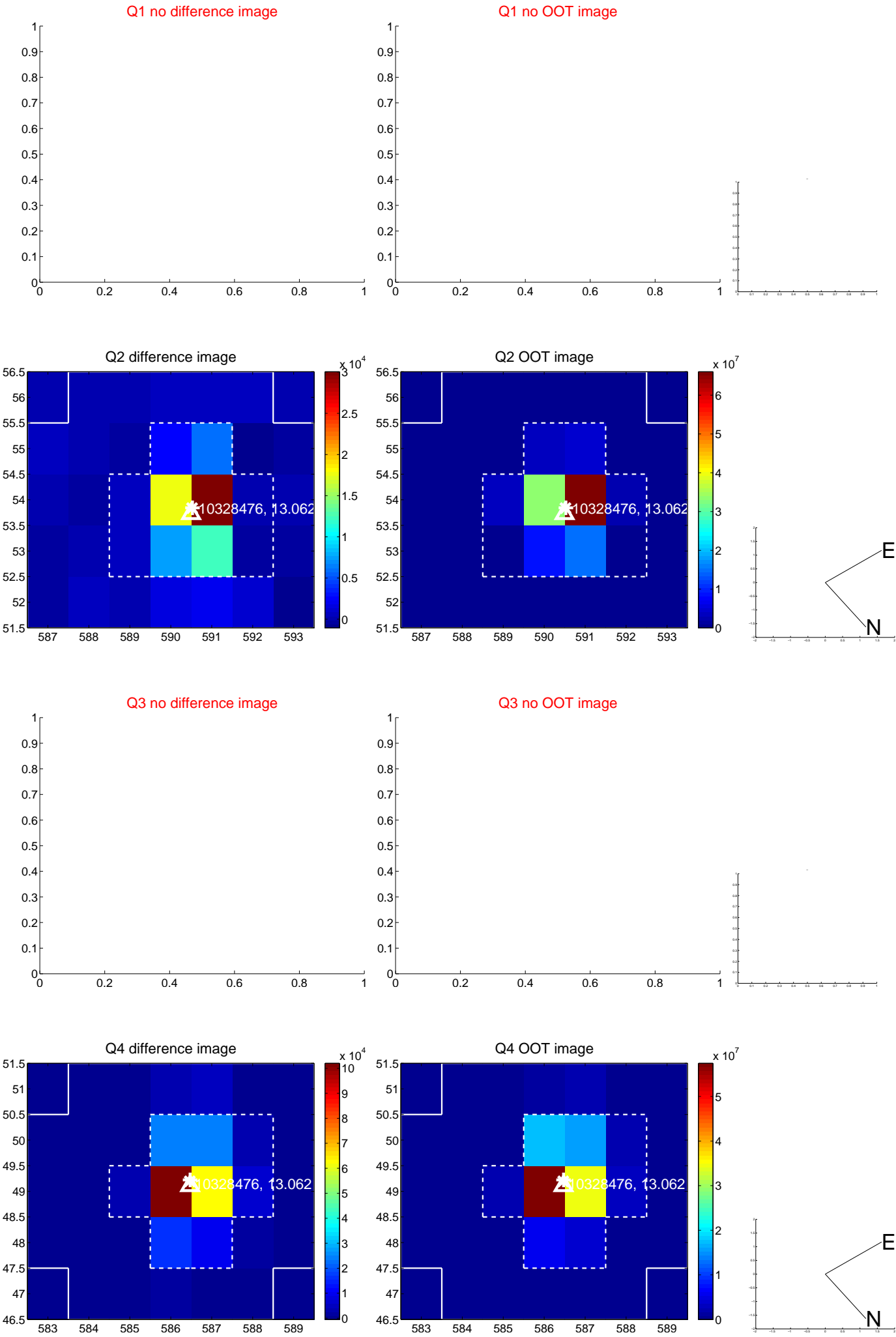
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.317 ± 0.381	0.83	-0.123 ± 0.396	0.292 ± 0.255
PRF-fit source offset from KIC position	0.231 ± 0.304	0.76	-0.015 ± 0.510	0.231 ± 0.276
photometric centroid source offset	0.60 ± 0.38	1.60	0.06 ± 0.38	-0.60 ± 0.37

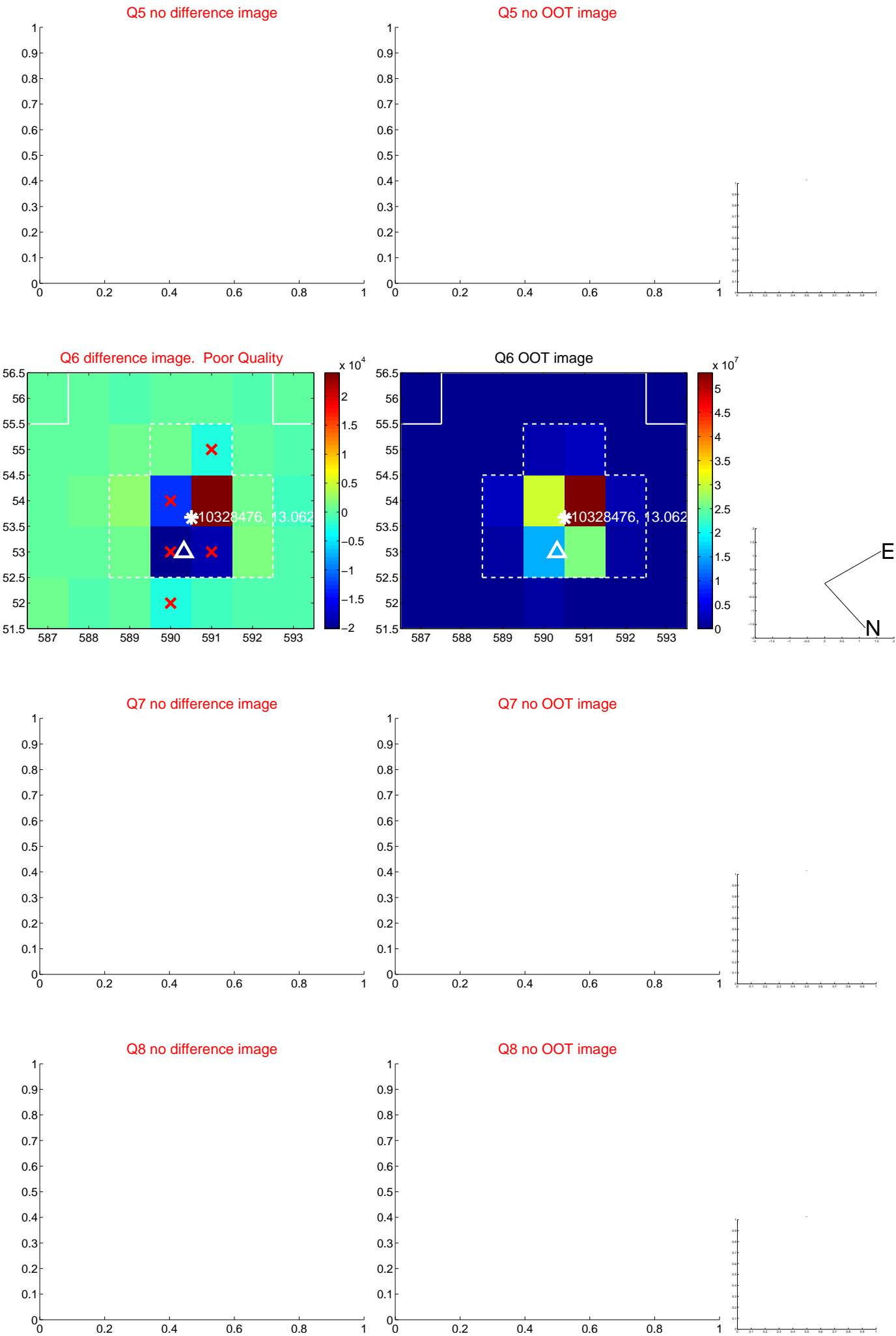


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

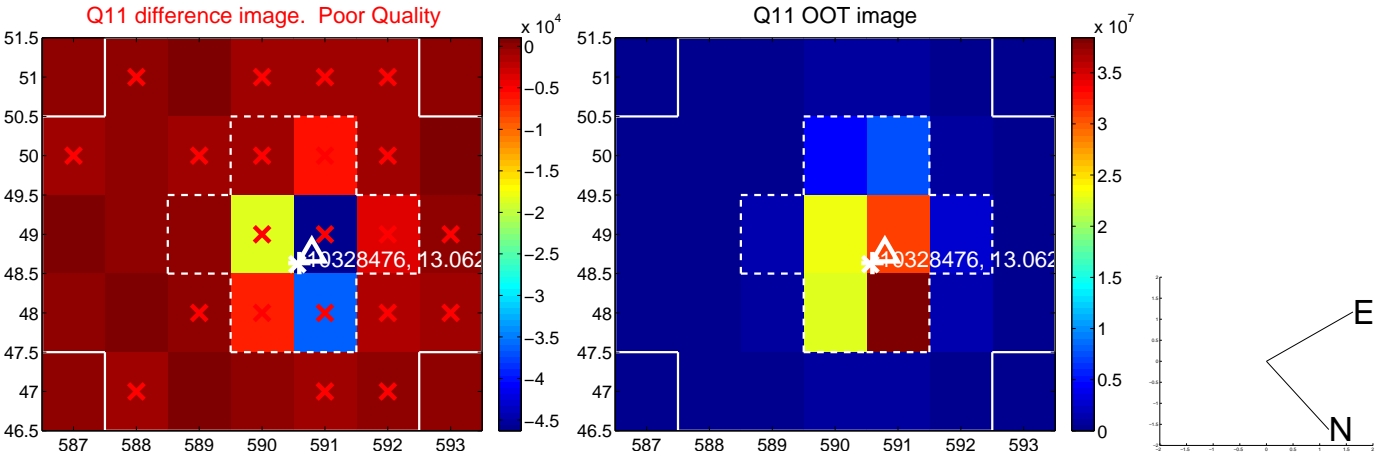
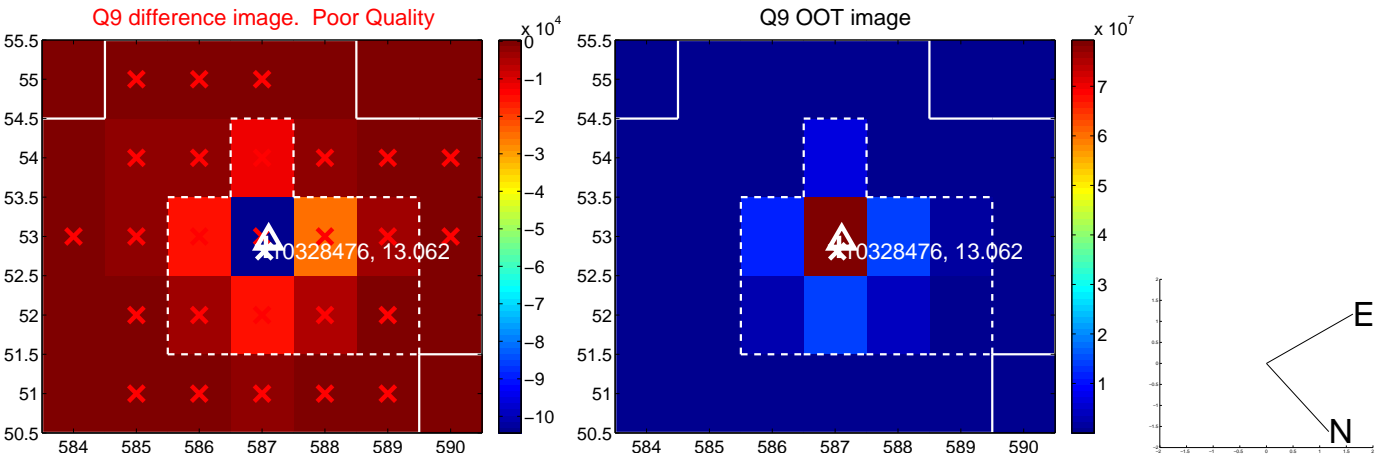
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



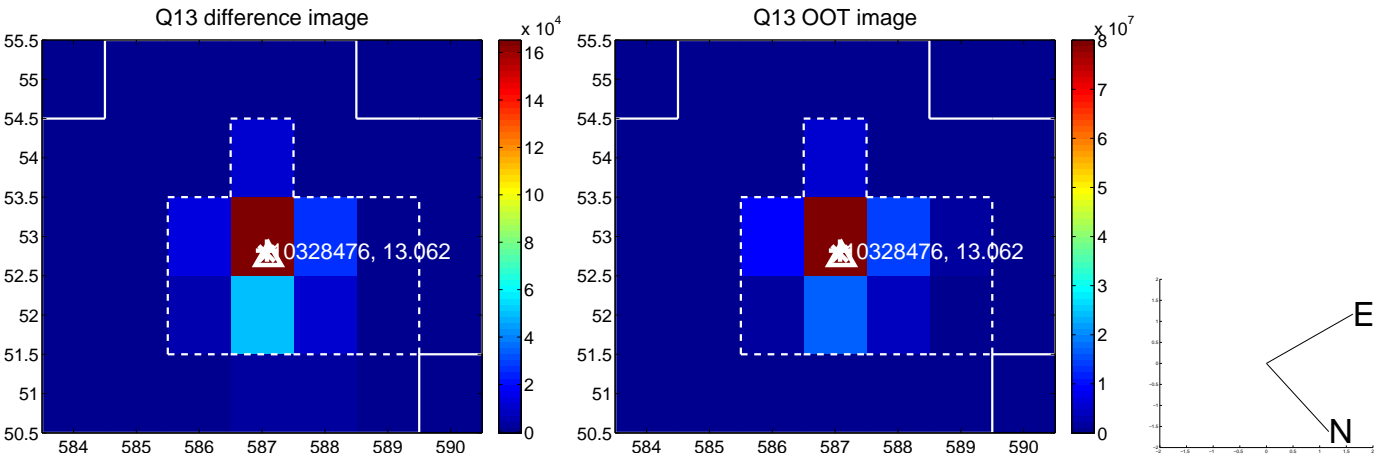
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



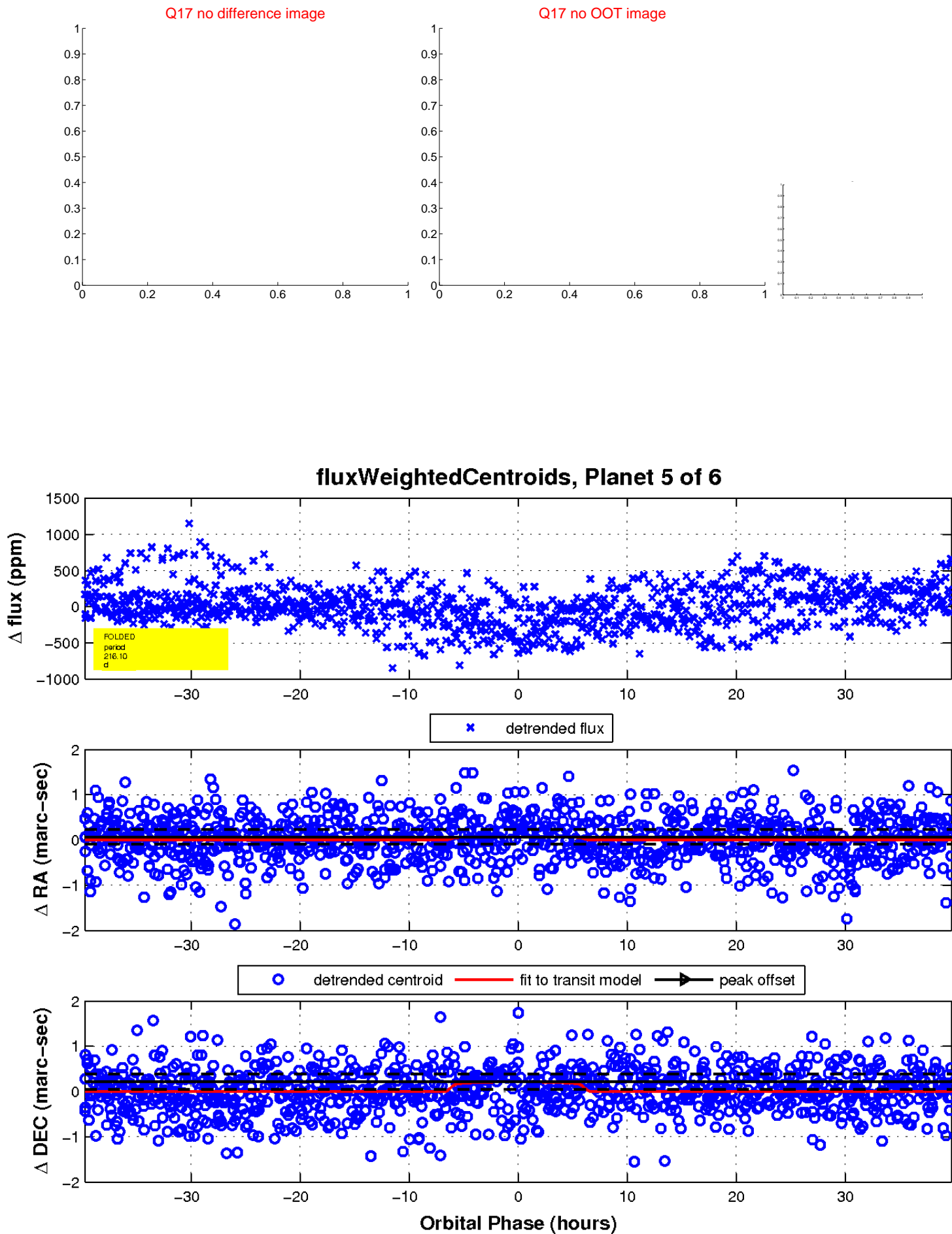
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

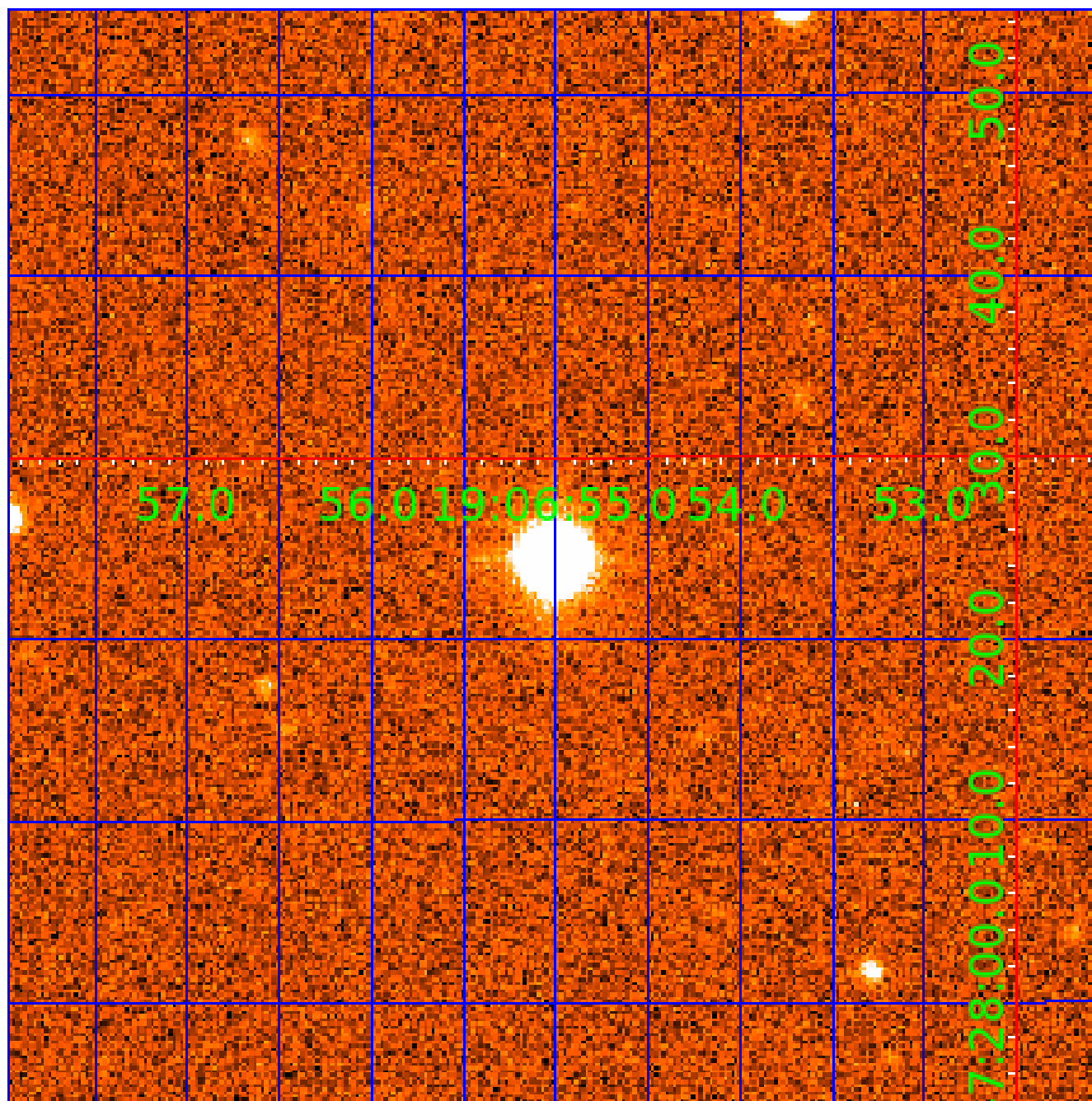


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 010328476

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})
010328476-01	OBS	No	3.173124	133.893882	28.0	12.358	9.8	5.6	1.53	7270	0.94	2544.48
010328476-02	OBS	No	3.171969	131.749424	0.0	11.066	10.1	0.0	1.53	7270	0.00	2545.72
010328476-03	OBS	No	104.873442	141.715761	514.2	41.836	15.6	7.5	1.53	7270	4.43	23.99
010328476-05	OBS	No	216.101813	175.647312	392.8	13.258	9.3	7.9	1.53	7270	3.43	9.15
010328476-06	OBS	No	0.528827	131.617899	37.6	5.896	8.2	13.5	1.53	7270	0.95	27743.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010328476-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV
010328476-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—SAME_NTL_PERIOD
010328476-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—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_FEW_DIFFS—HALO_GHOST
010328476-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
010328476-06	OBS	FP	0.00	1	0	1	0	TRANS_GAPPED—LPP_DV—SAME_NTL_PERIOD—CENT_FEW_DIFFS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

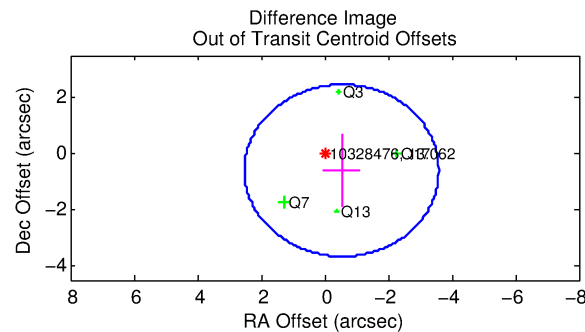
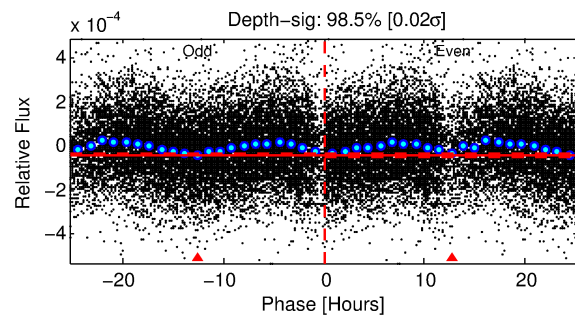
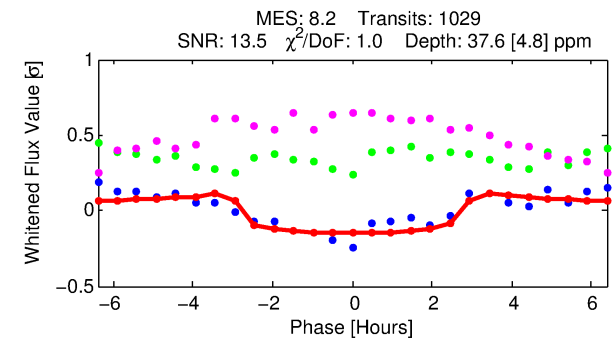
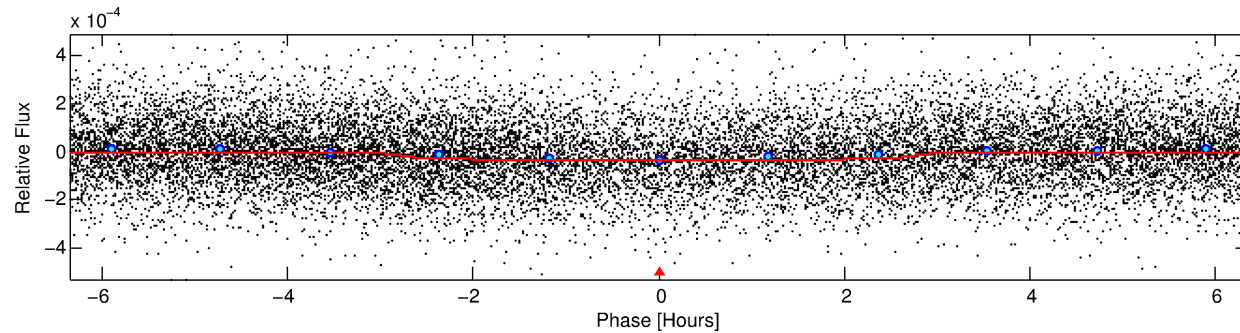
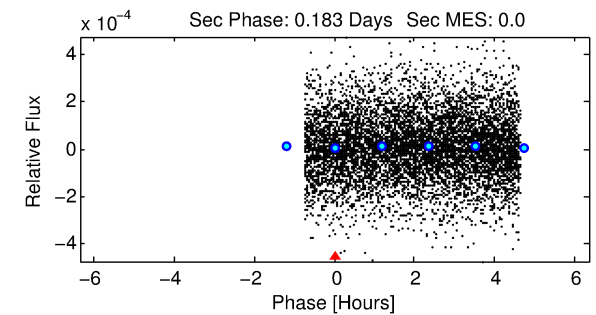
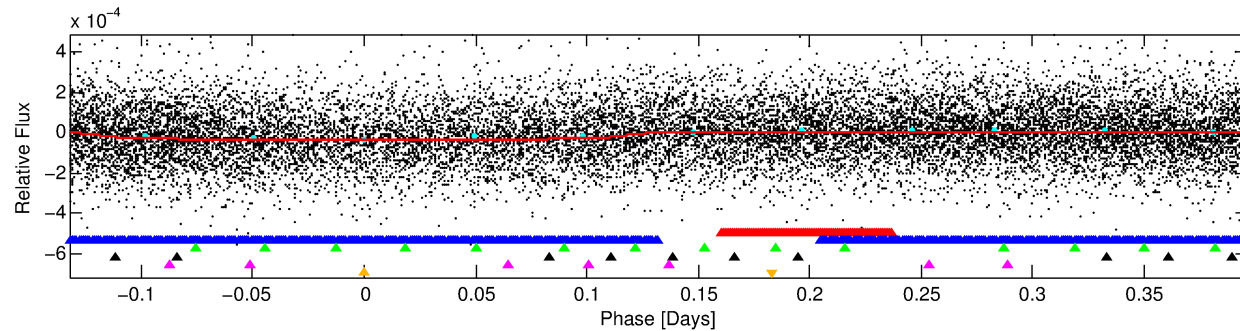
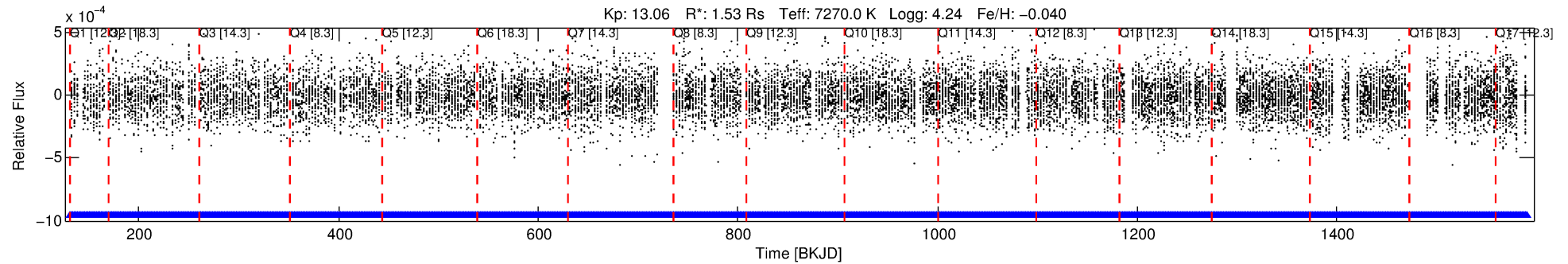
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010328476-06

No Significant Match Found

DV One-Page Summary

KIC: 10328476 Candidate: 6 of 6 Period: 0.529 d



DV Fit Results:

Period = 0.52883 [0.00001] d
Epoch = 131.6179 [0.0031] BKJD
Rp/R* = 0.0057 [0.0028]
a/R* = 1.01 [0.06]
b = 0.10 [29.39]
Seff = 27743.71 [12042.37]
Teq = 3291 [357] K
Rp = 0.95 [0.58] Re
a = 0.0146 [0.0042] AU
Ag = N/A
Teffp = N/A

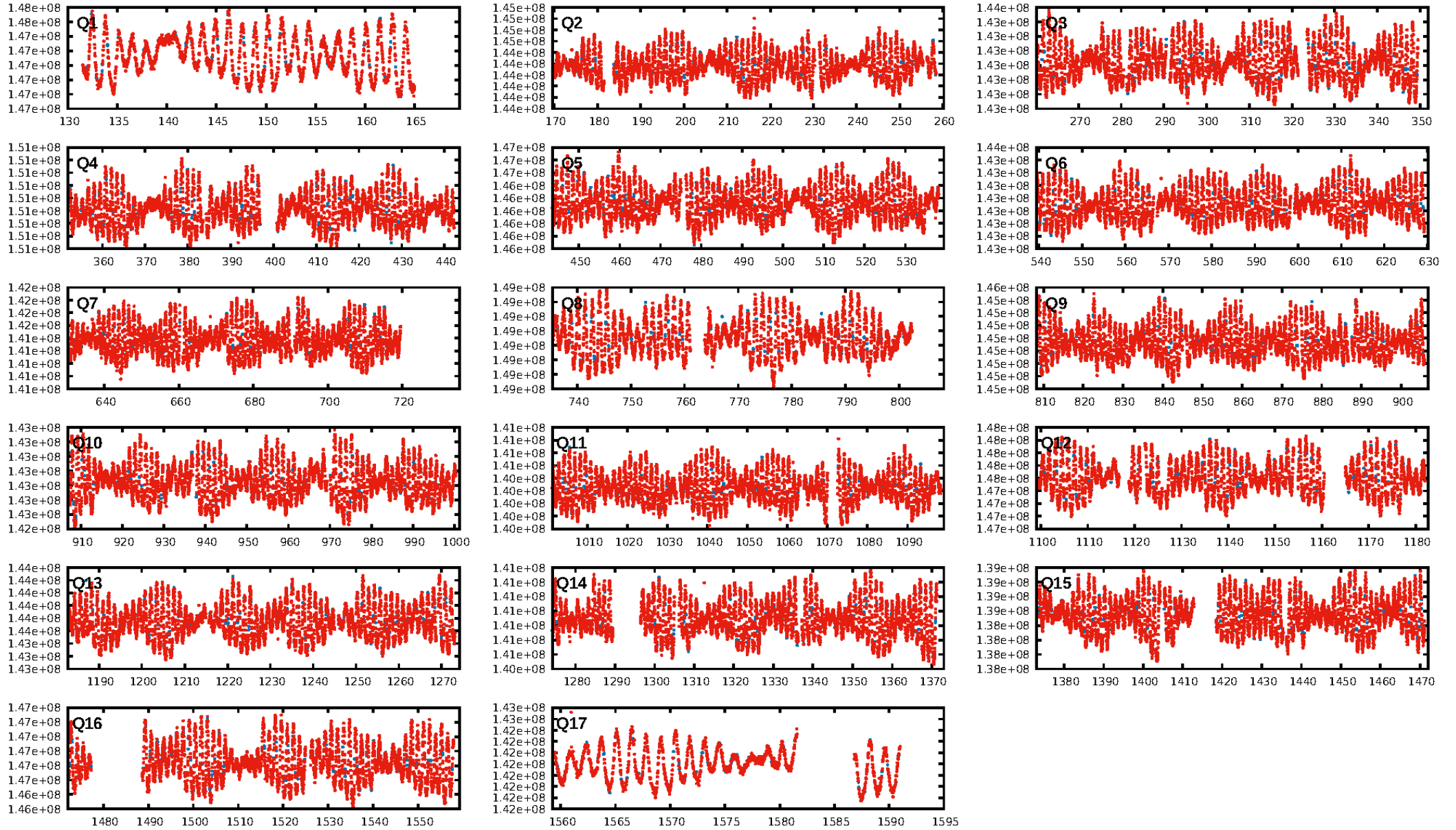
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [5.06σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [987/987]
GhostDiagnostic-chr: -0.1156
Centroid-sig: 68.2%
Centroid-so: 0.281 arcsec [1.06σ]
OotOffset-rm: 0.807 arcsec [0.79σ]
KicOffset-rm: 0.781 arcsec [0.67σ]
OotOffset-st: 0/2/0/2 [4]
KicOffset-st: 0/2/0/2 [4]
DiffImageQuality-fgm: 0.25 [1/4]
DiffImageOverlap-fno: 1.00 [17/17]

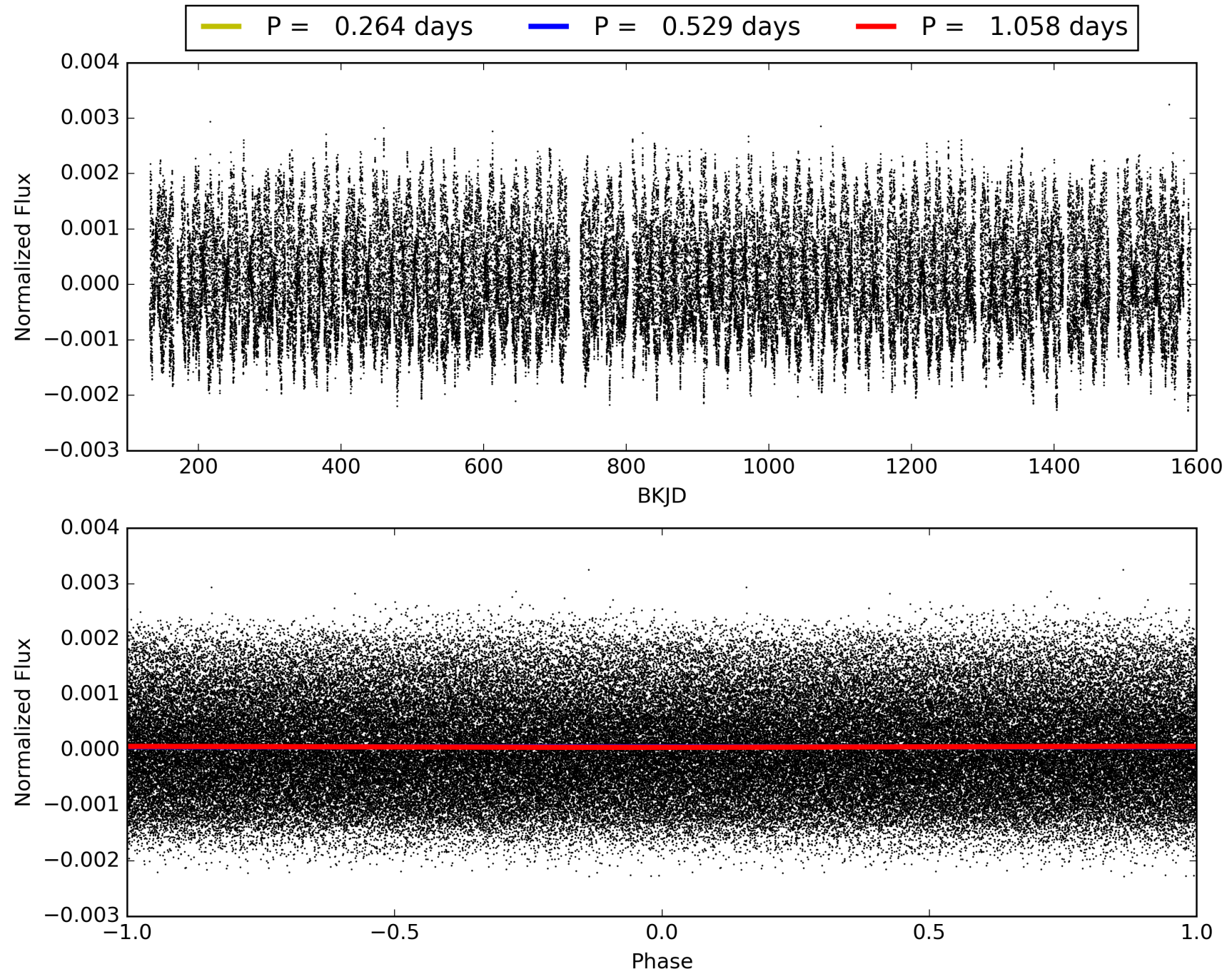
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:04:10 Z

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

TCE 010328476-06, PDC Light Curves

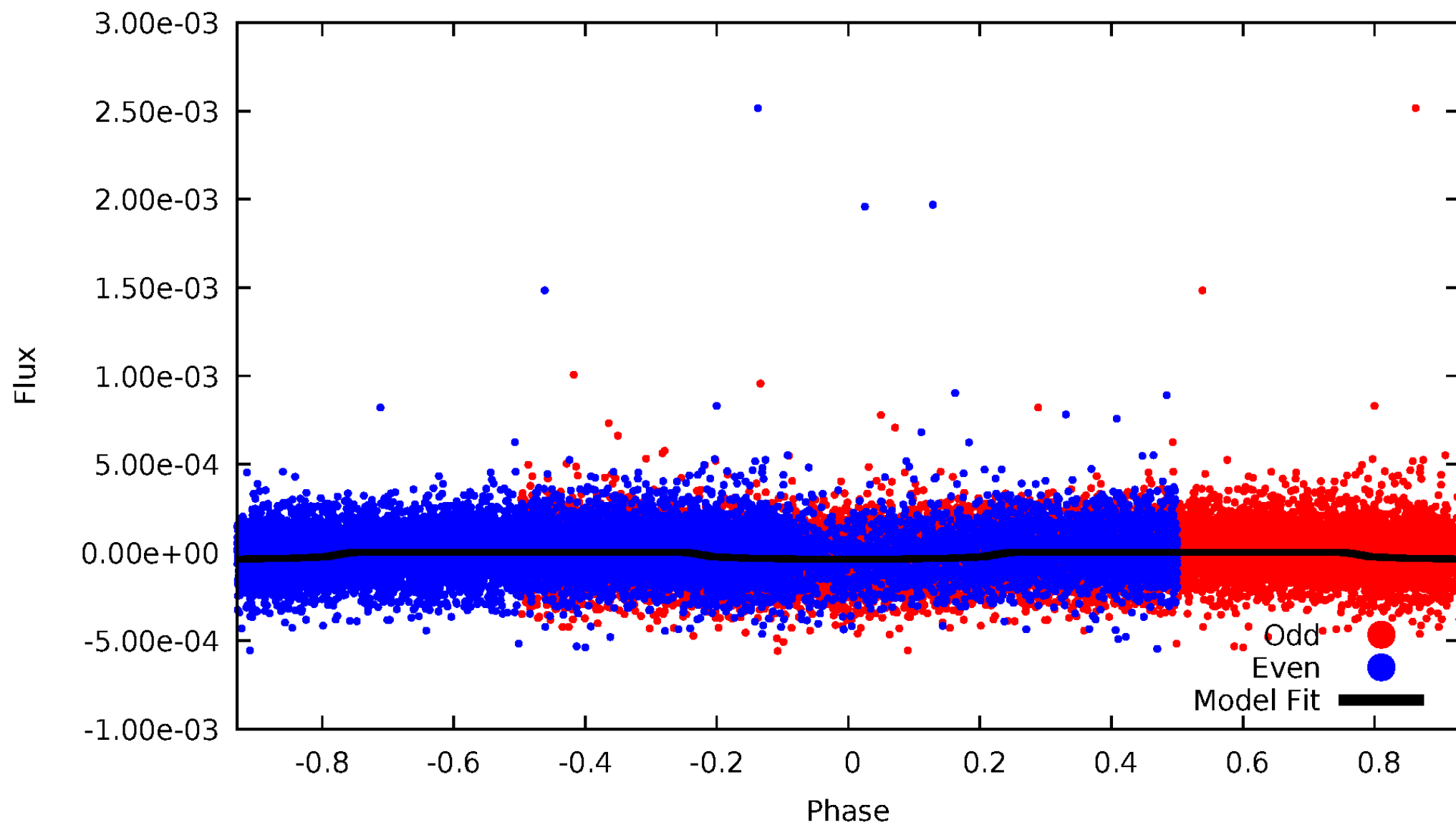


TCE 010328476-06



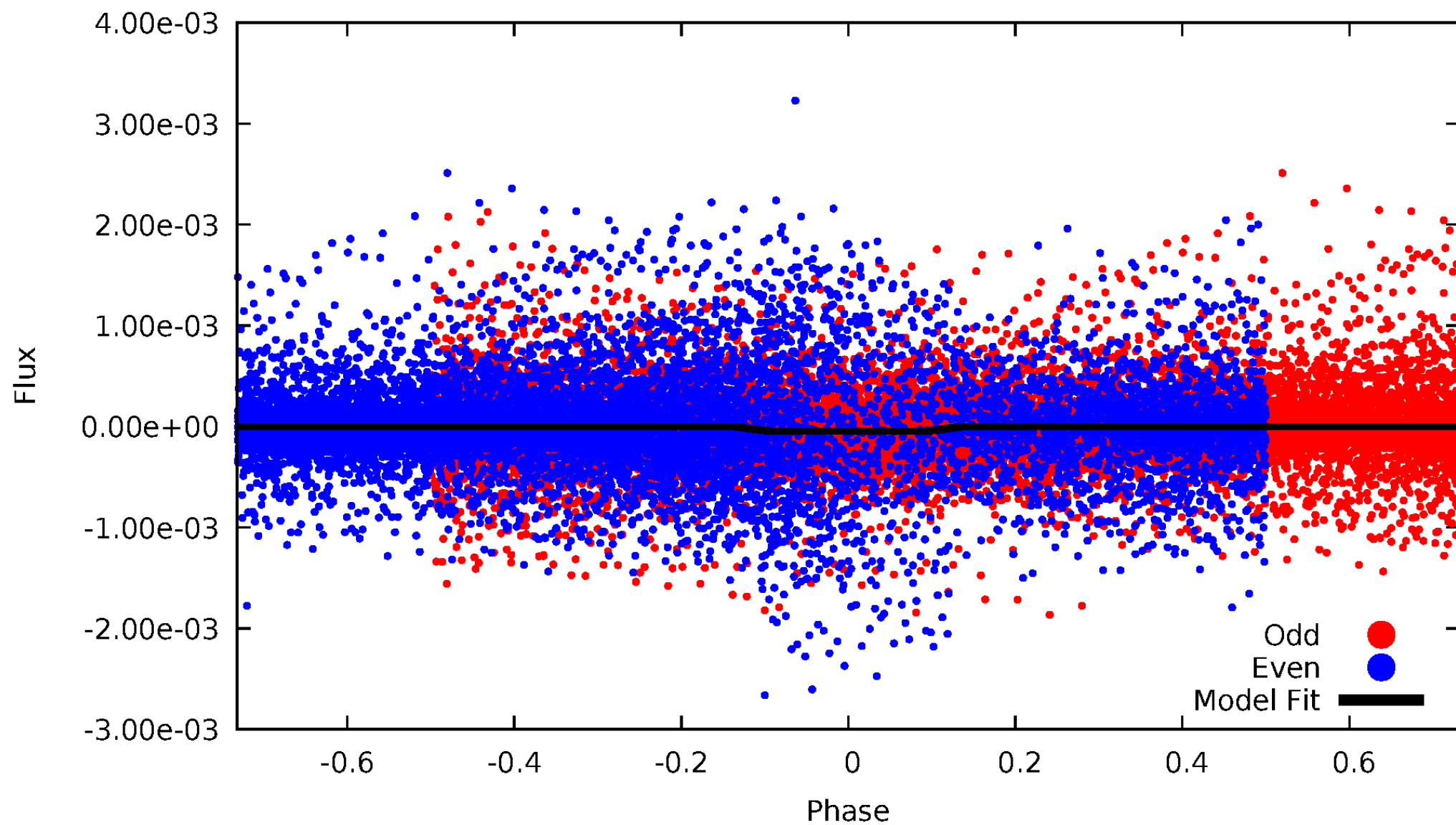
DV Odd/Even

TCE 010328476-06



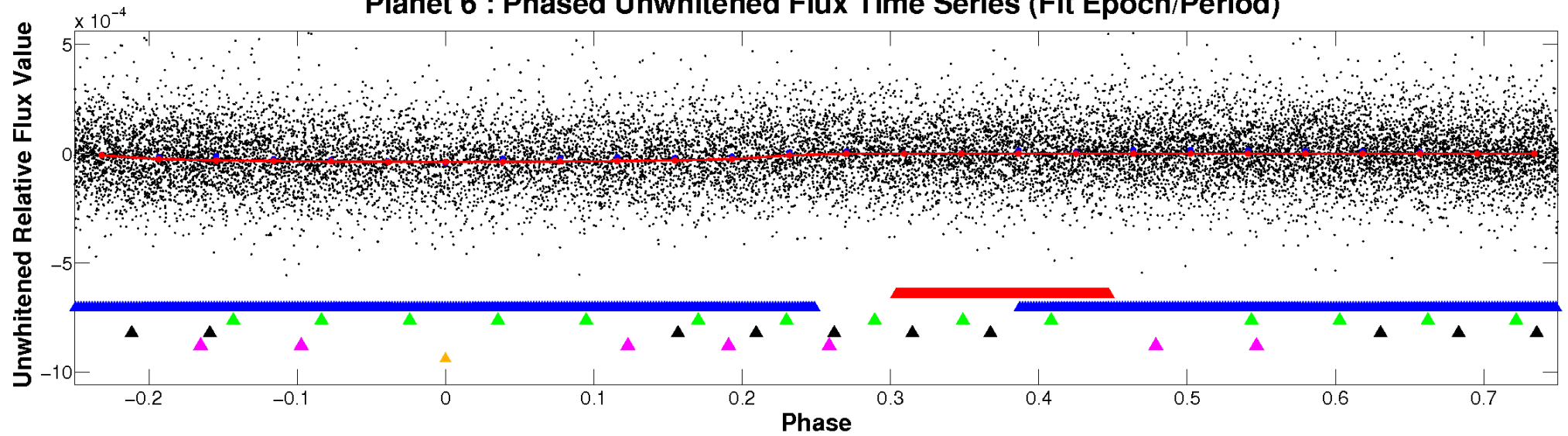
ALT Odd/Even

TCE 010328476-06

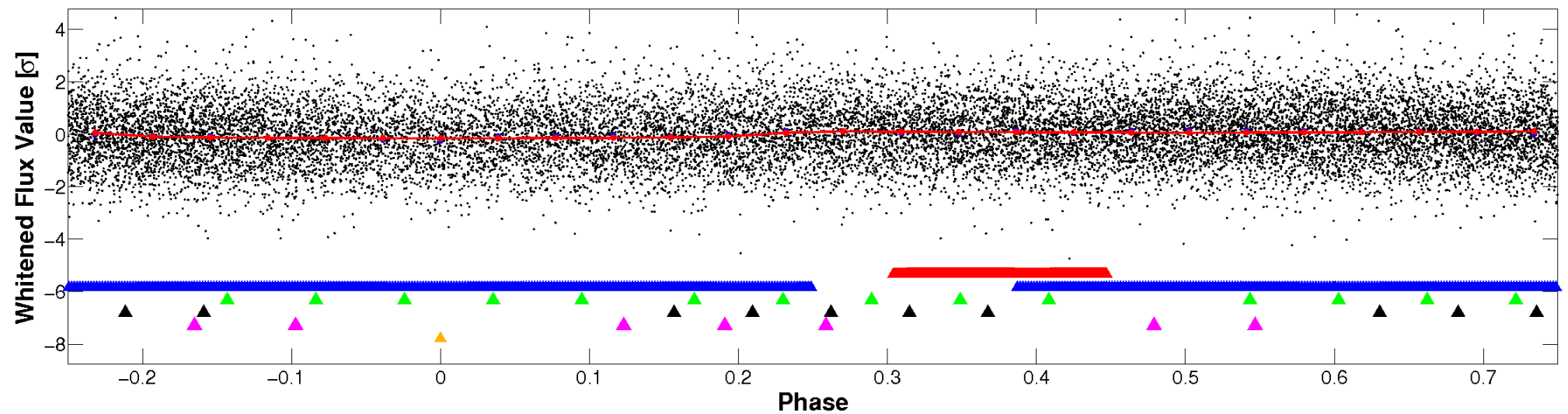


Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

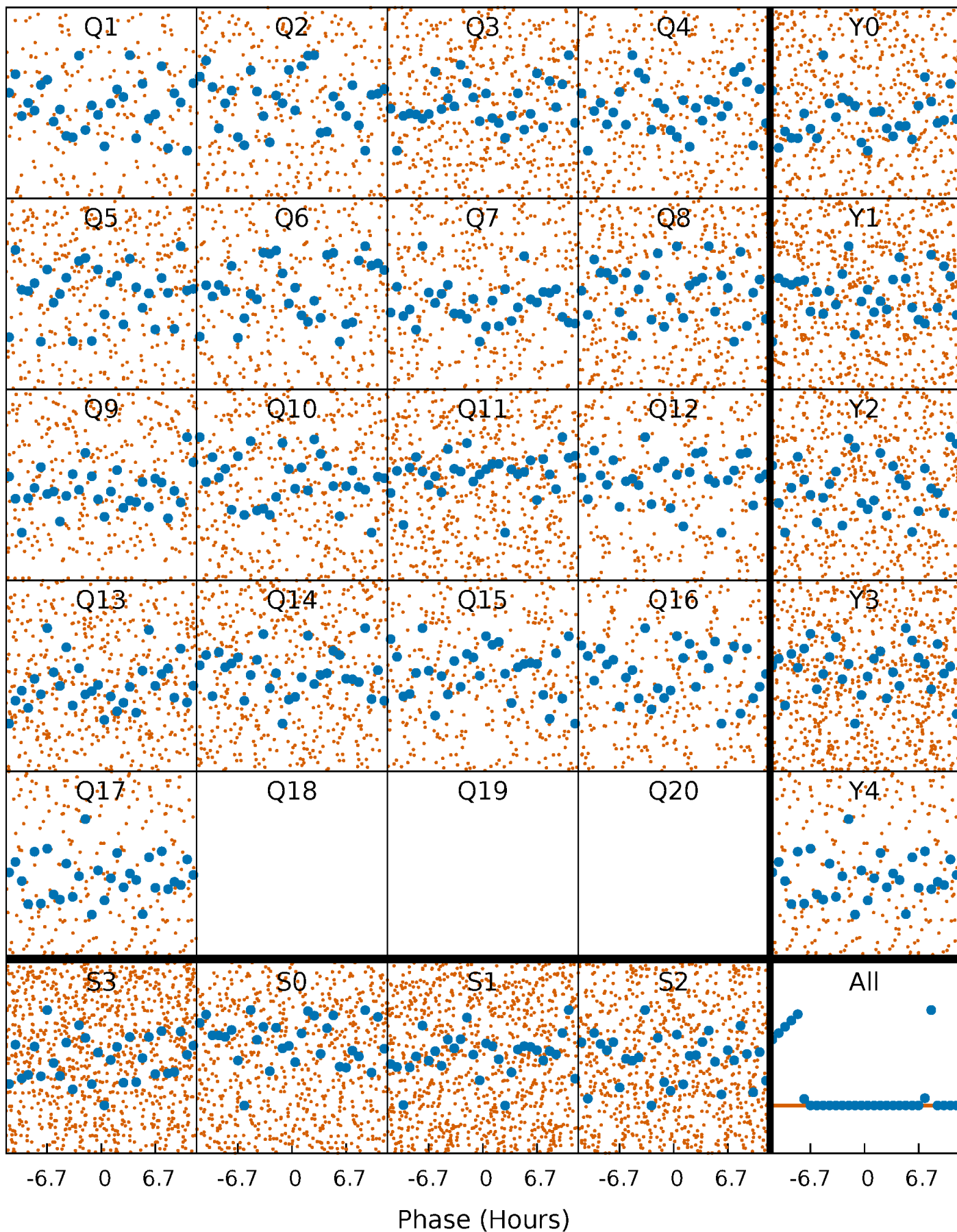


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



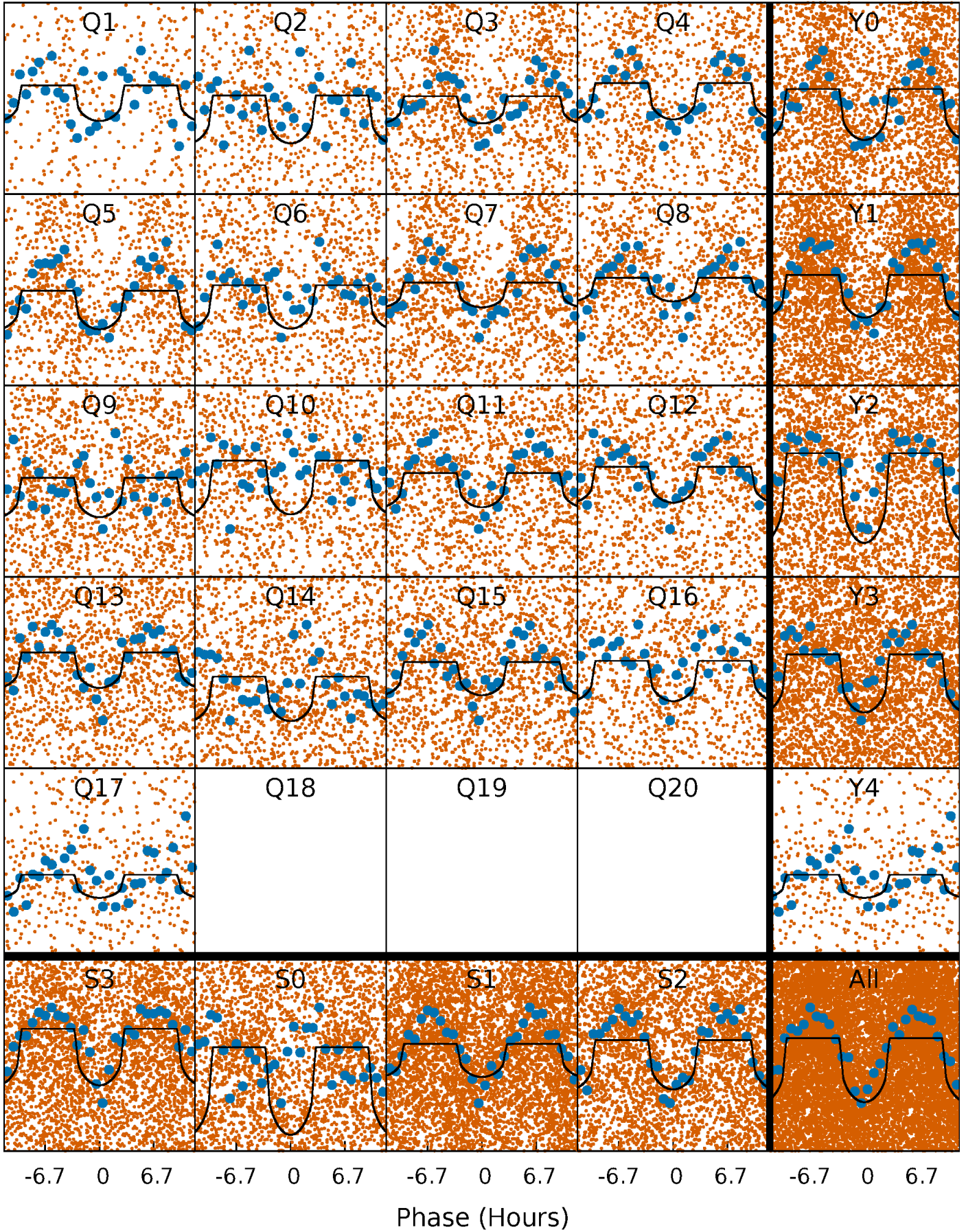
PDC Quarter-Phased Transit Curves

TCE 010328476-06 P= 0.528827 Days $T_0=131.617899$ (BKJD)



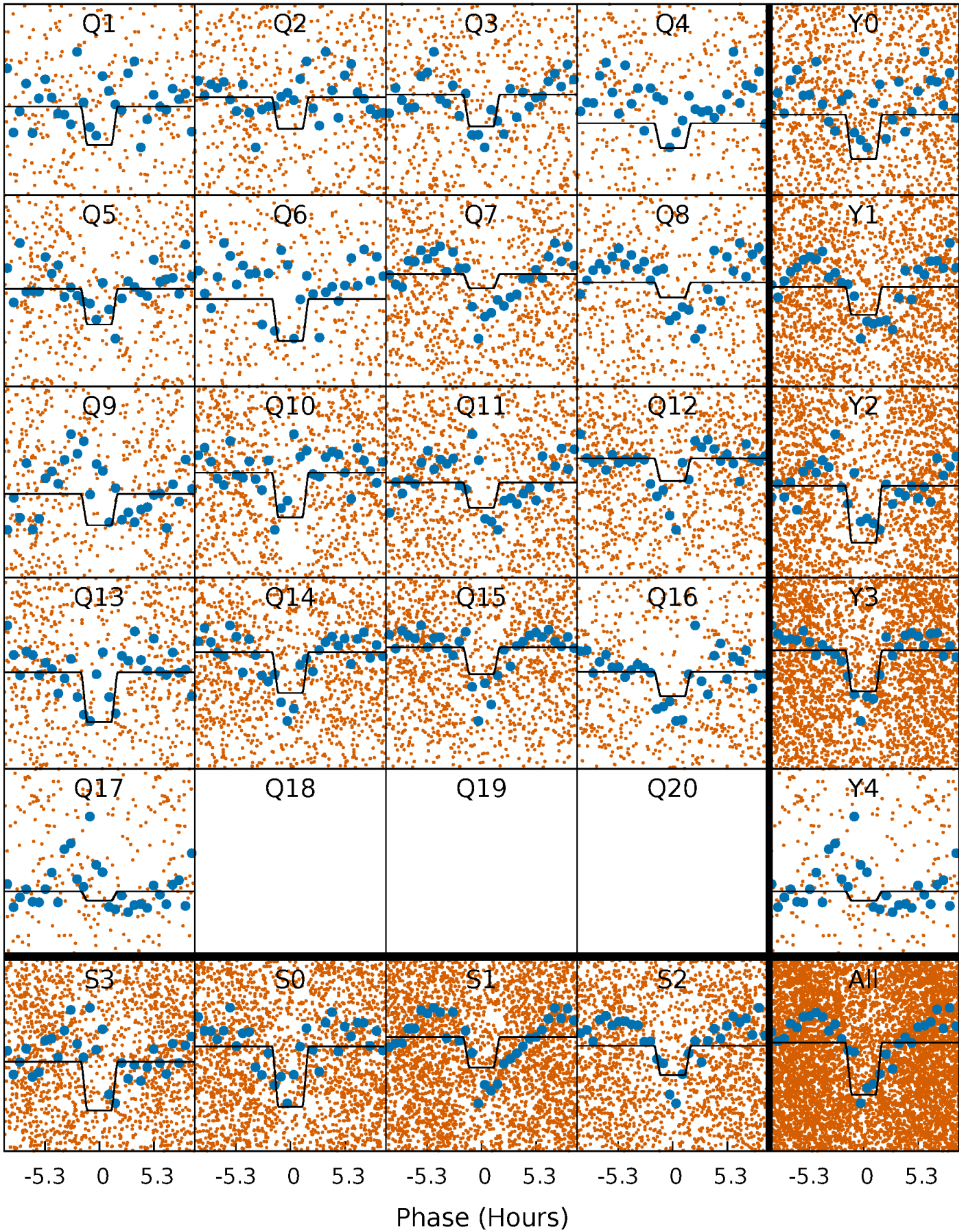
DV Quarter-Phased Transit Curves

TCE 010328476-06 P= 0.528827 Days $T_0=131.617899$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

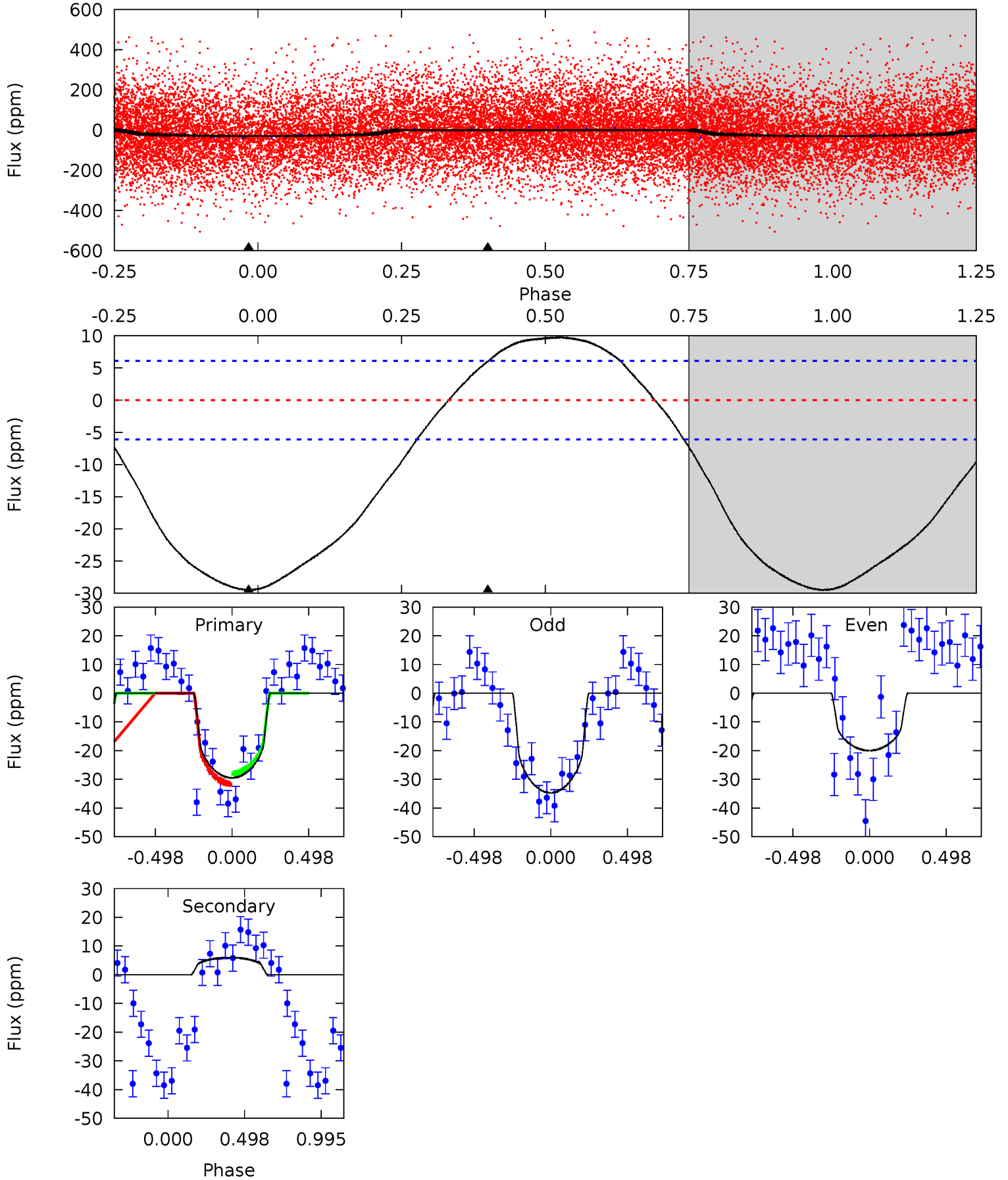
TCE 010328476-06 P= 0.528815 Days $T_0=131.611021$ (BKJD)



DV Model-Shift Uniqueness Test

010328476-06, P = 0.528827 Days, E = 131.617899 Days

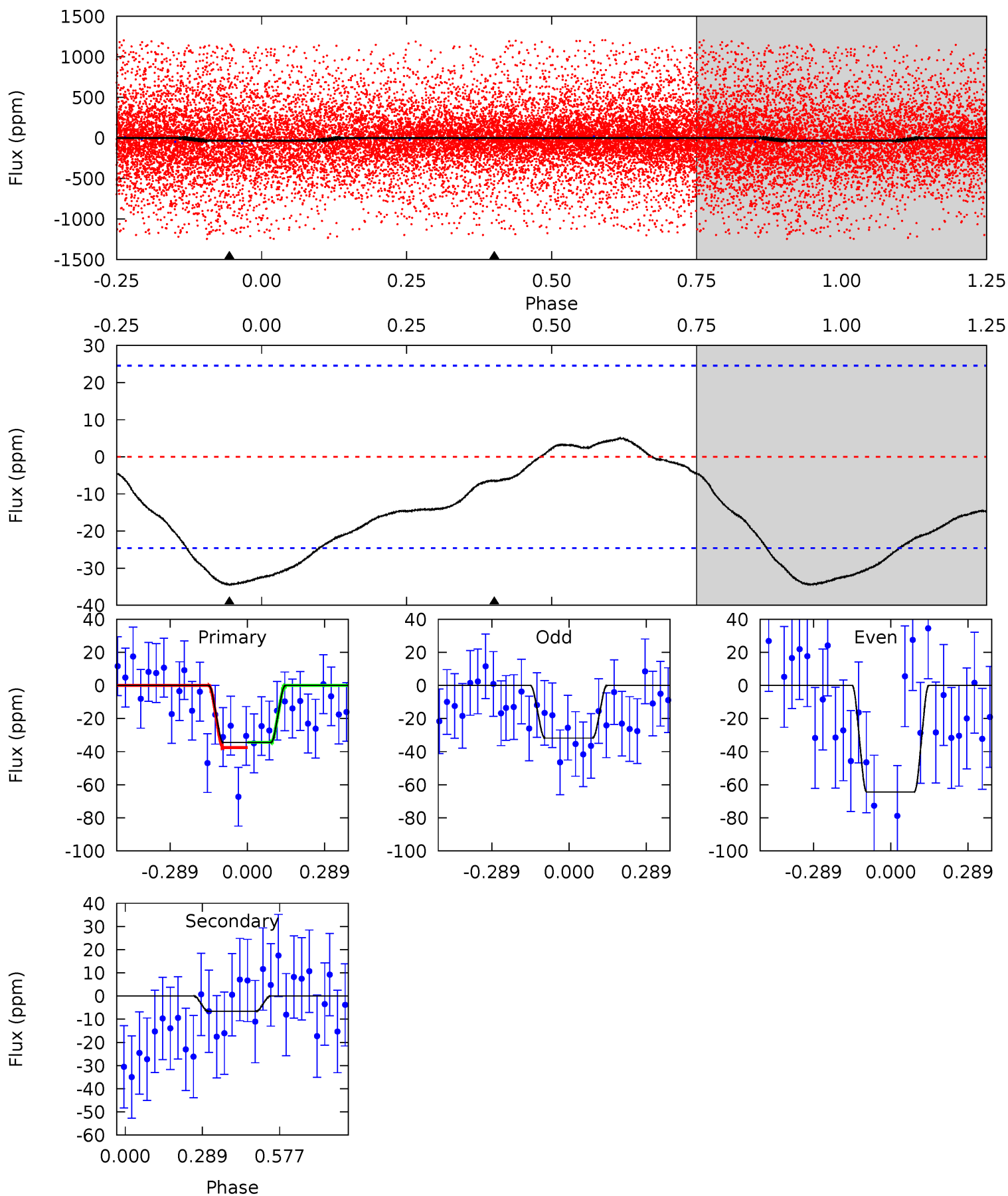
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.4	-4.14	0	0	4.22	0.68	2.00	20.4	20.4	-4.14	-4.14	4.89	0.63	0.25	1.27



Alt Model-Shift Uniqueness Test

010328476-06, P = 0.528815 Days, E = 131.611021 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.09	1.16	0	0	4.34	1.06	0.41	6.09	6.09	1.16	1.16	2.70	0.55	0.13	0.28



Stellar Parameters For KIC 010328476

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7270^{+228}_{-304}	$4.235^{+0.090}_{-0.210}$	$-0.040^{+0.200}_{-0.350}$	$1.534^{+0.547}_{-0.235}$	$1.471^{+0.219}_{-0.197}$	$0.574^{+0.228}_{-0.309}$
	+3%/-4%	+2%/-5%	+500%/-875%	+36%/-15%	+15%/-13%	+40%/-54%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 010328476-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	6 ± 1	$0.98^{+0.49}_{-0.44}$	4655^{+362}_{-266}	-5217^{+522}_{-1364}	$-0.682^{+0.384}_{-1.767}$
Alt.	-7 ± 6	$1.18^{+0.57}_{-0.52}$	4646^{+389}_{-278}	3751^{+1854}_{-7642}	$0.488^{+1.180}_{-0.400}$

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 $A_{obs} \gg 1.0$

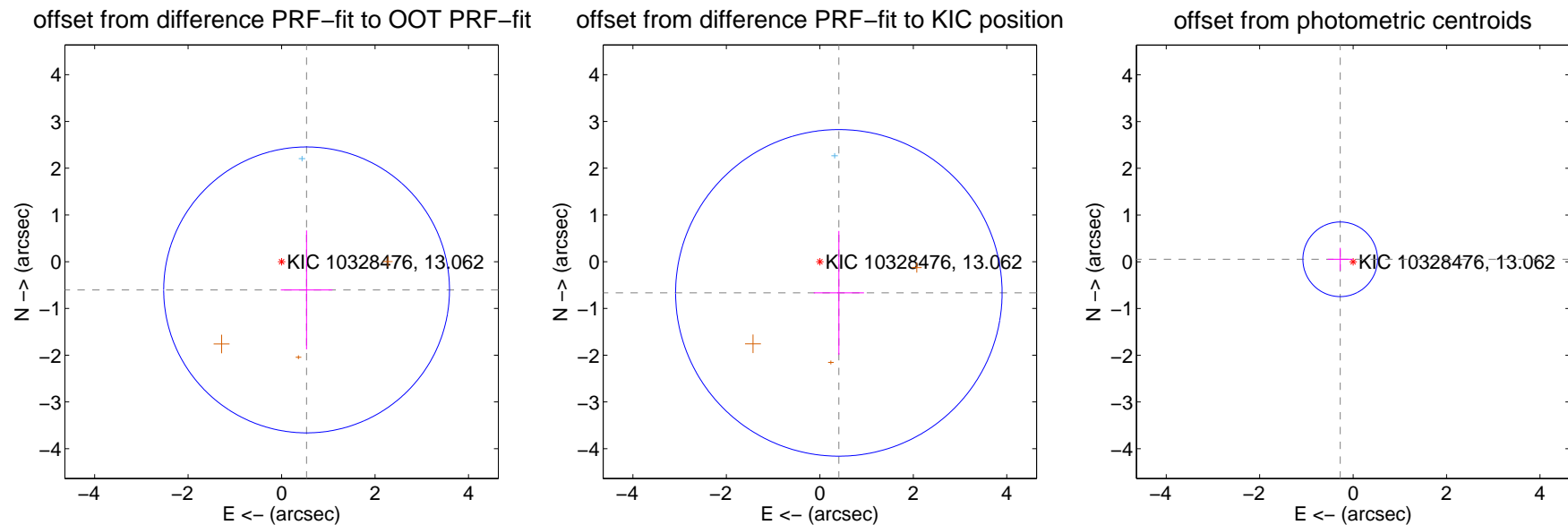
DV Centroid Data

Supplemental centroid analysis for 010328476-06. Kepler magnitude: 13.06. Transit SNR 13.54

There are 1 quarters with good PRF difference image offsets

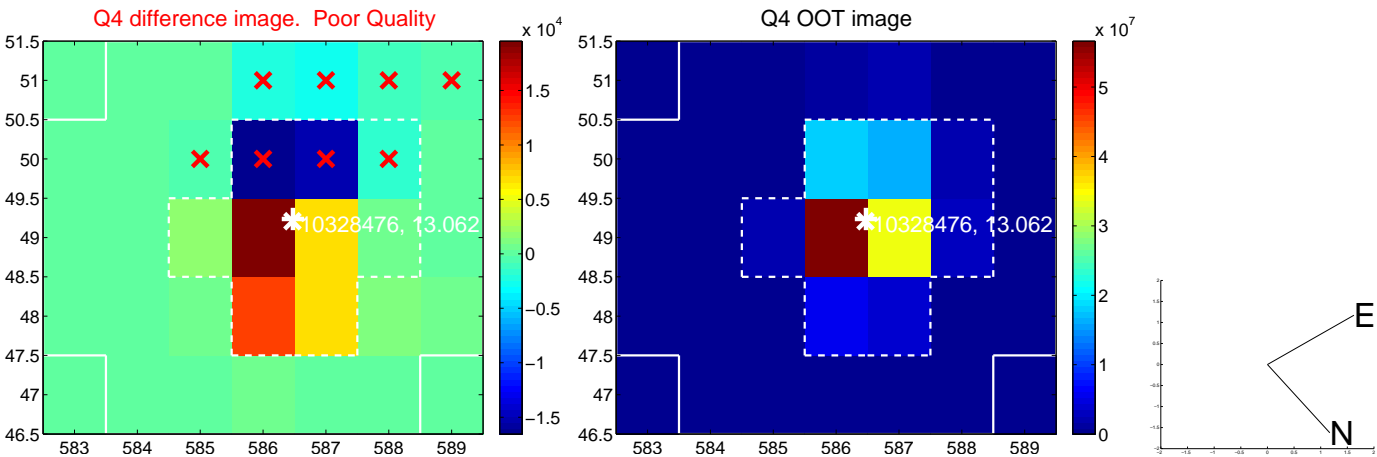
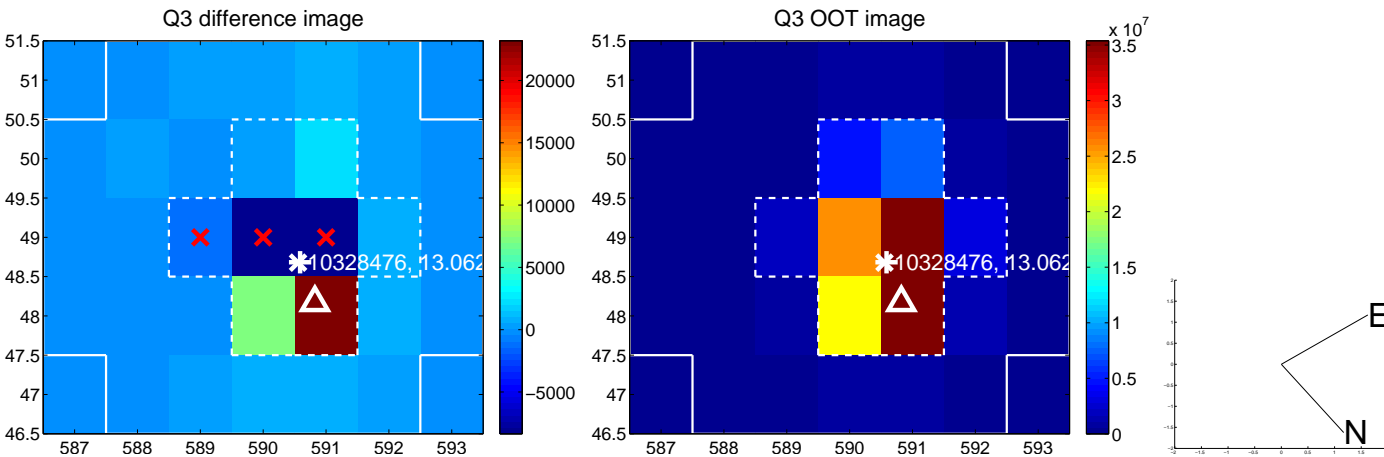
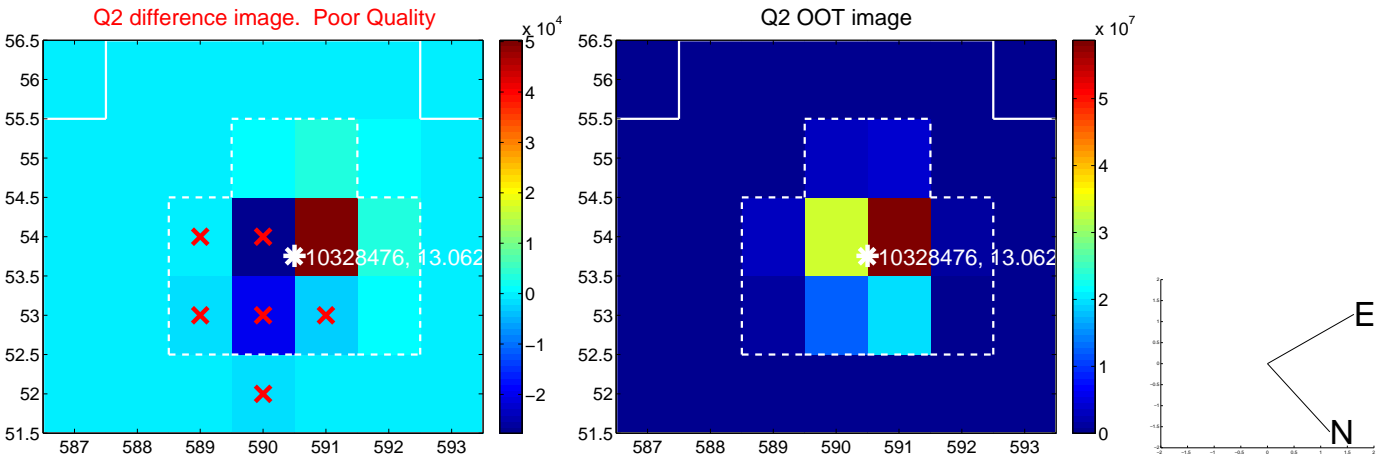
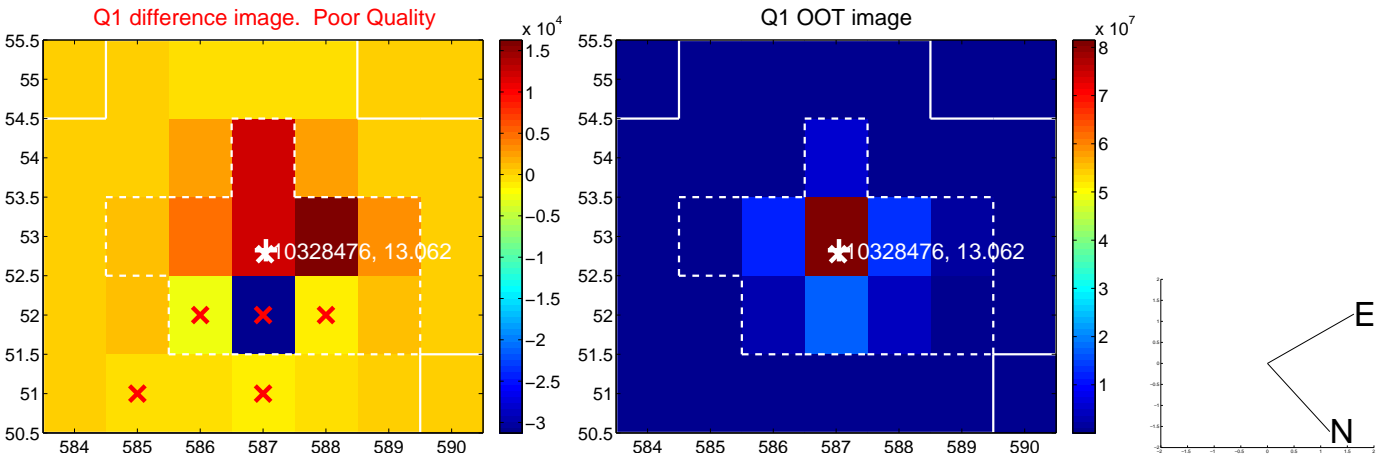
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.807 ± 1.019	0.79	-0.536 ± 0.553	-0.604 ± 1.271
PRF-fit source offset from KIC position	0.781 ± 1.164	0.67	-0.407 ± 0.537	-0.667 ± 1.324
photometric centroid source offset	0.28 ± 0.27	1.06	0.28 ± 0.27	0.05 ± 0.24

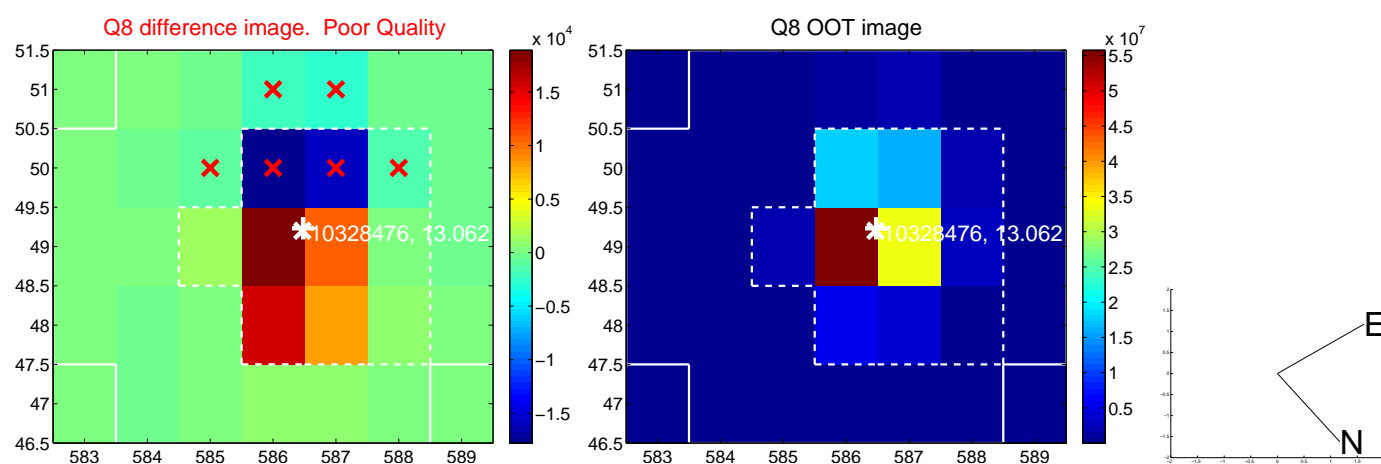
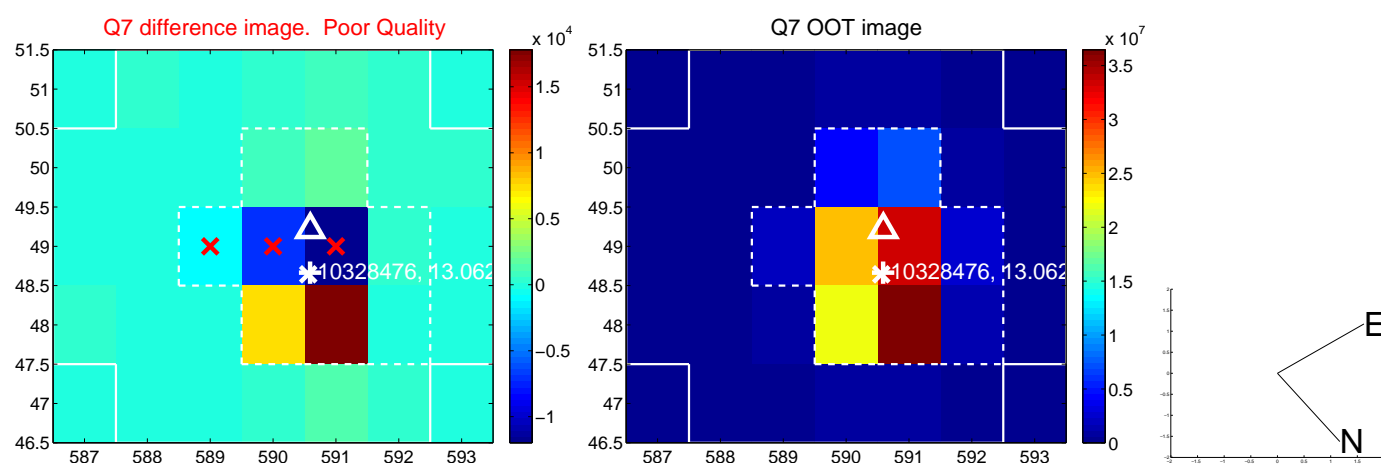
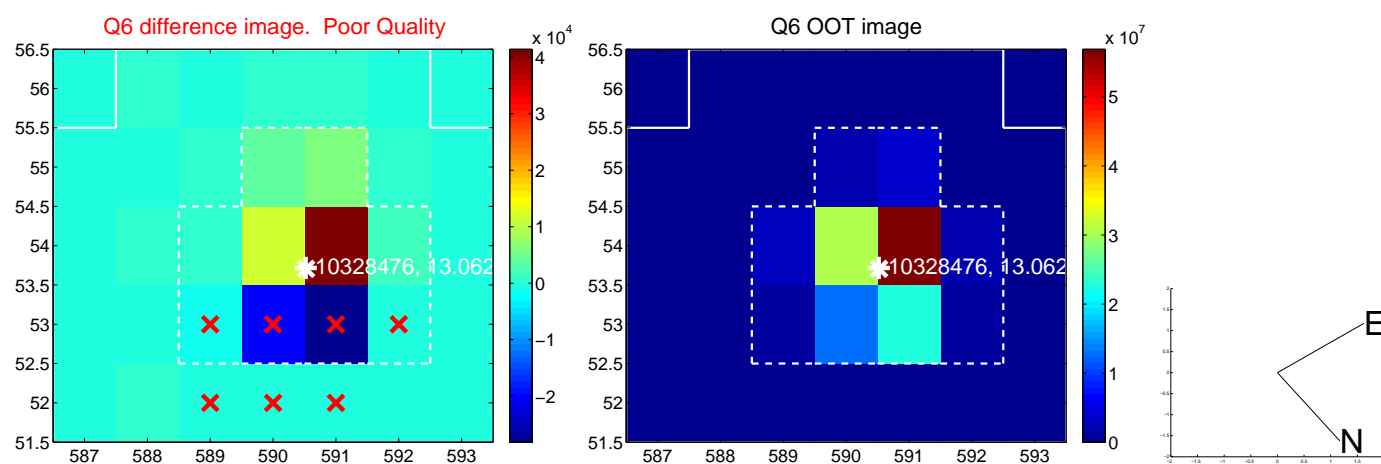
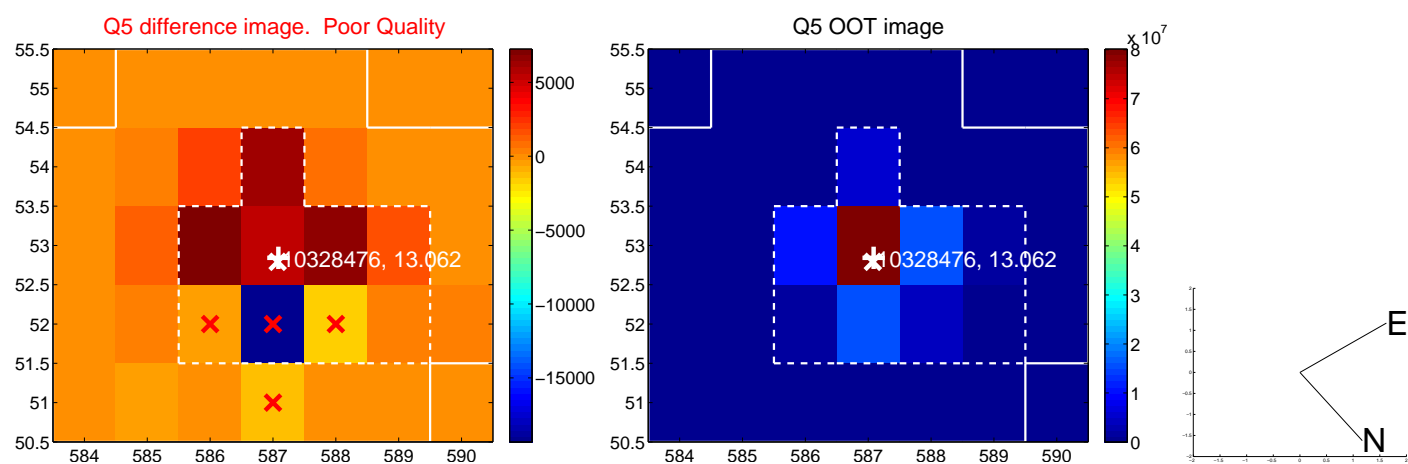


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

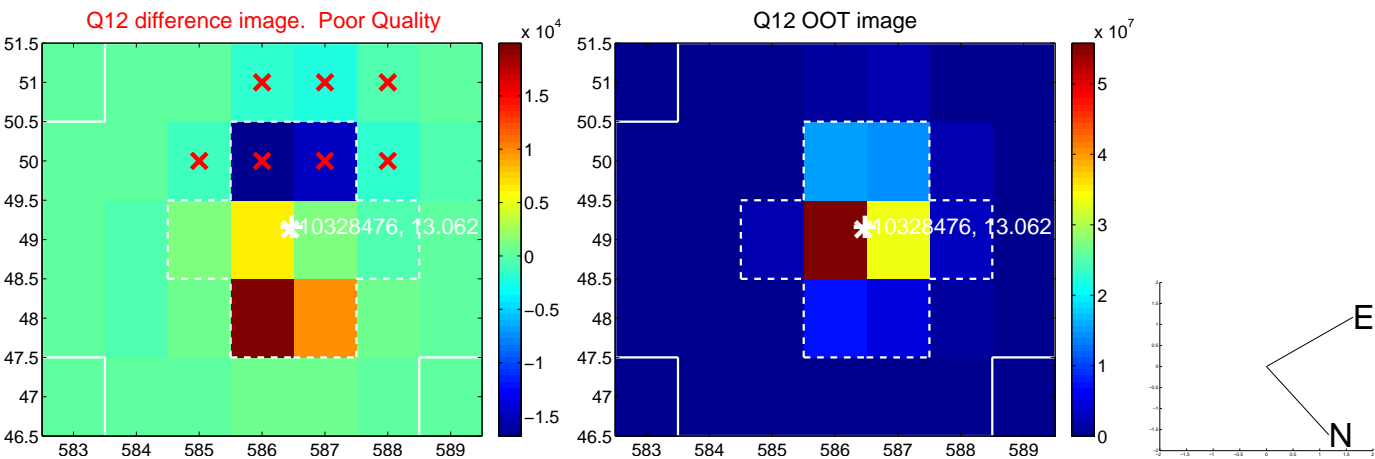
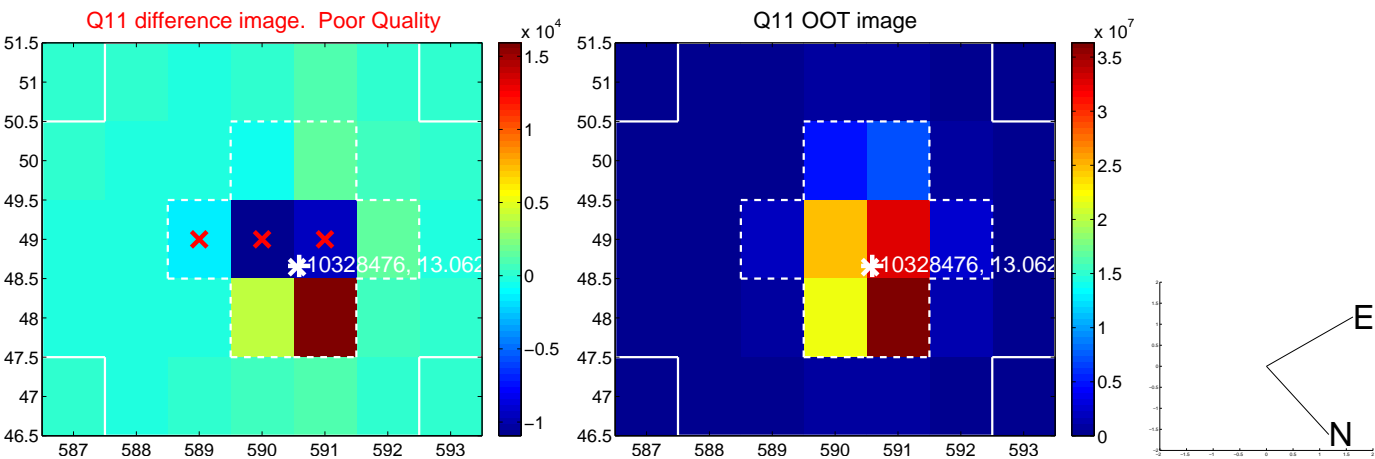
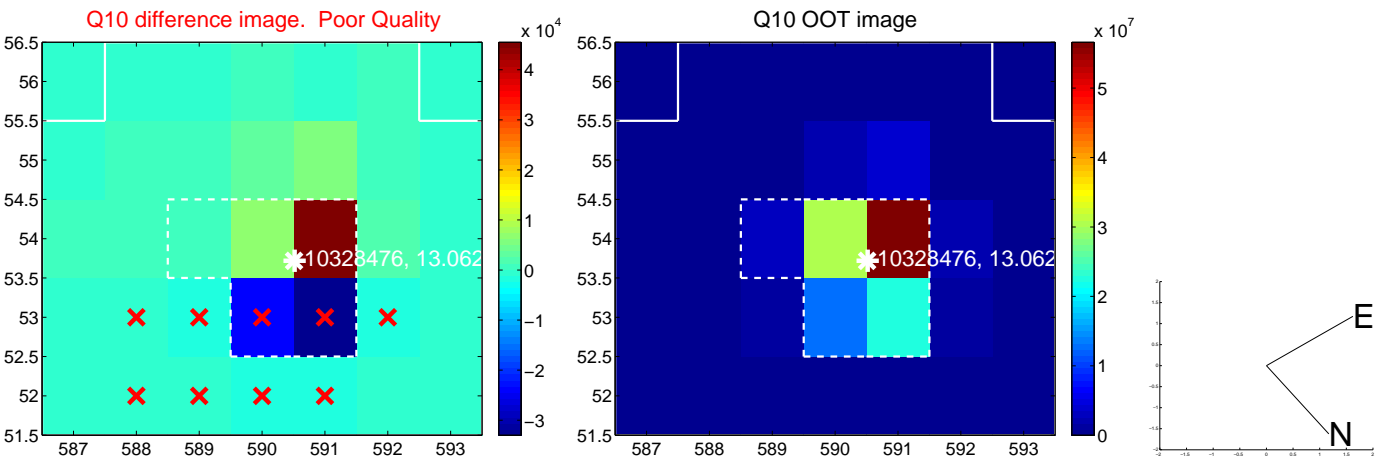
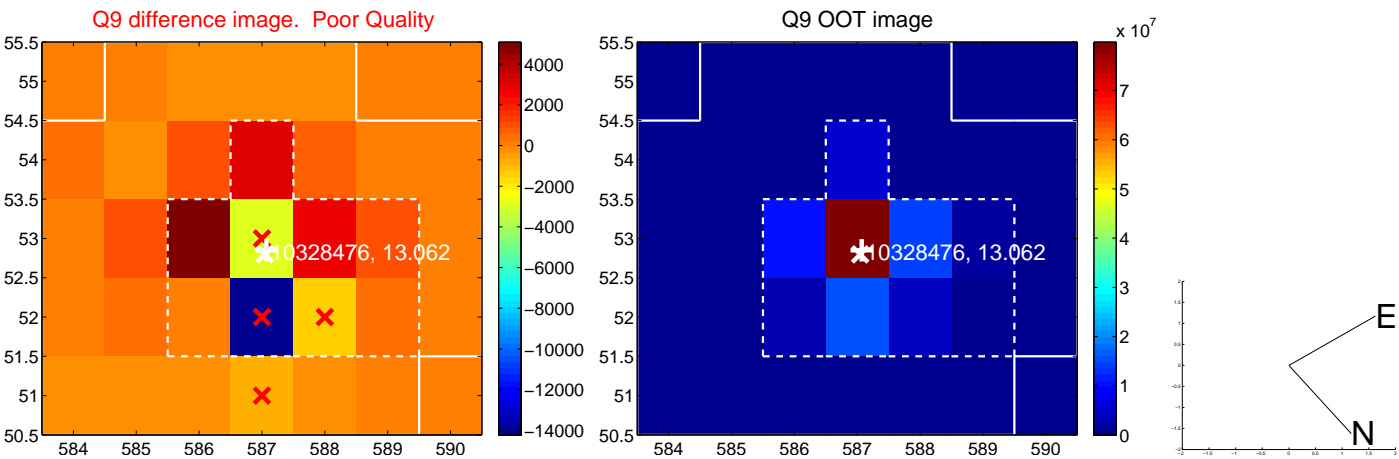
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



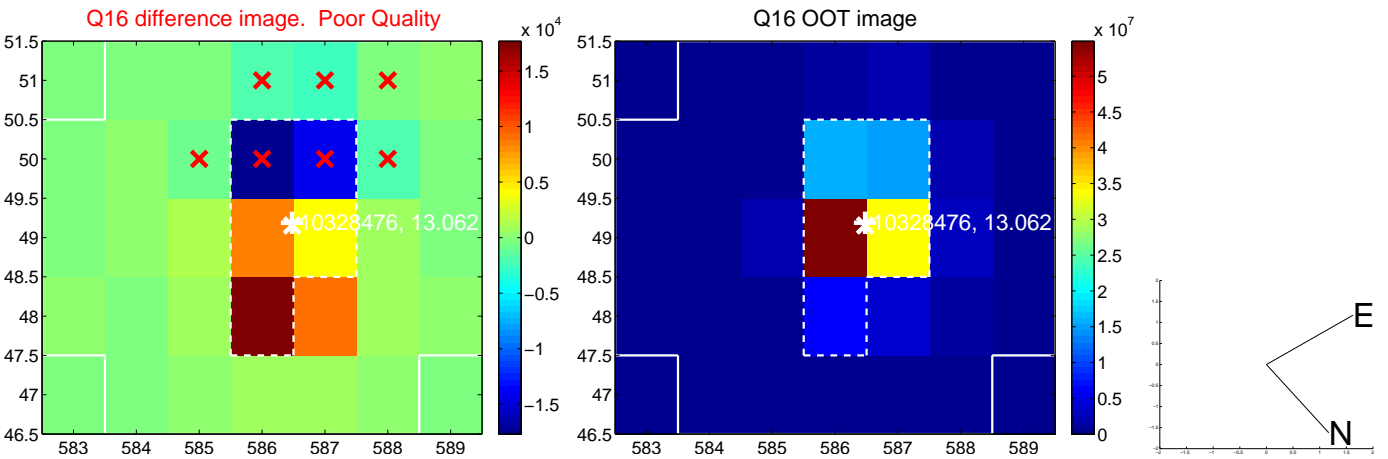
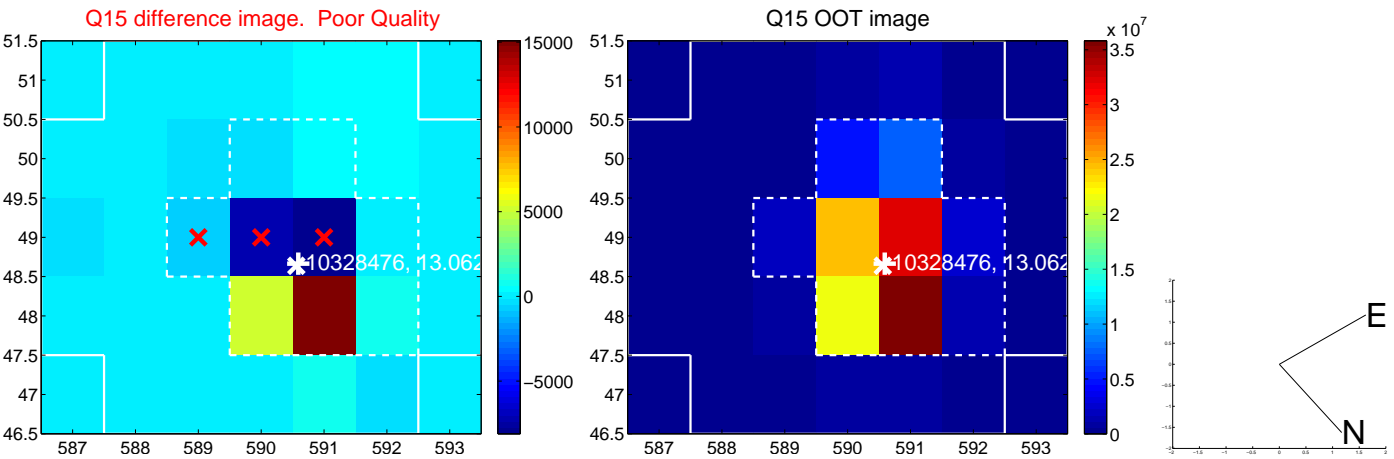
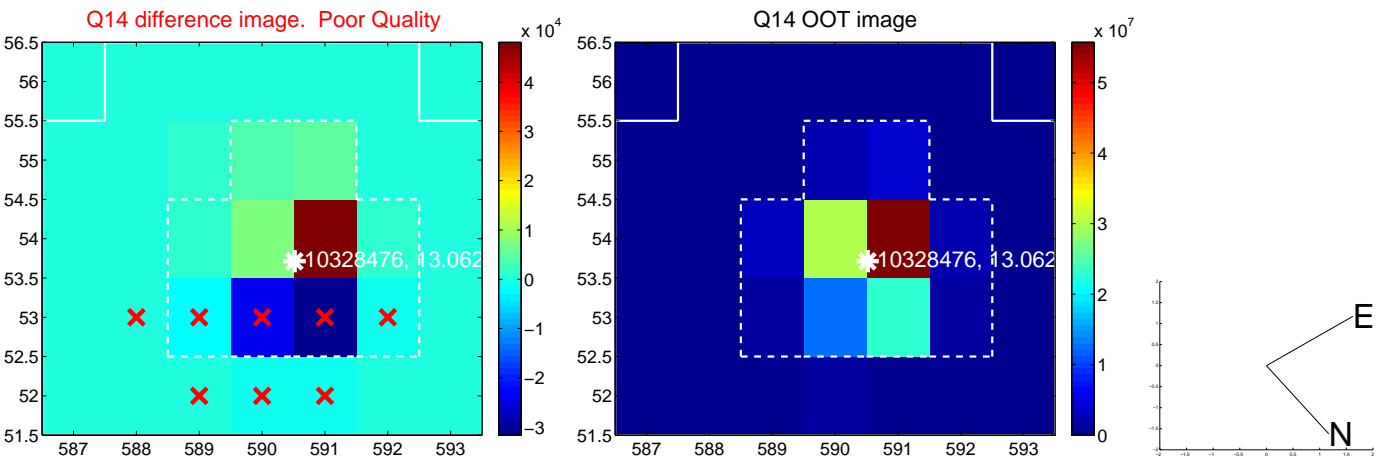
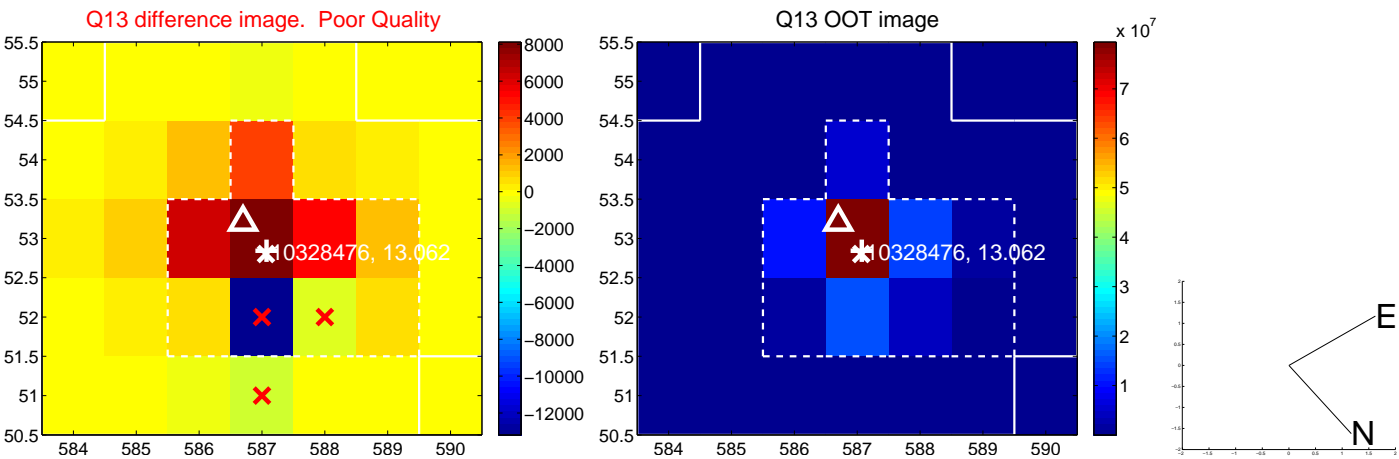
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

