

KIC 007176268

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})
007176268-01	OBS	No	0.813753	132.060153	12.8	5.202	10.2	10.8	2.14	6698	0.84	21912.38
007176268-02	OBS	No	51.204386	153.350435	106.5	3.823	12.4	4.7	2.14	6698	2.52	87.55
007176268-03	OBS	No	79.682941	165.313349	234.5	3.218	11.6	9.4	2.14	6698	3.77	48.55
007176268-04	OBS	No	102.901731	181.369342	163.1	3.825	12.8	8.5	2.14	6698	3.13	34.52
007176268-05	OBS	No	77.880572	171.840913	124.3	8.625	11.2	5.9	2.14	6698	2.76	50.05
007176268-06	OBS	No	174.110248	213.867569	311.3	7.376	11.3	9.7	2.14	6698	7.27	17.12
007176268-07	OBS	No	79.596048	135.056846	103.3	5.051	9.8	4.1	2.14	6698	2.48	48.62
007176268-08	OBS	No	518.428552	304.103724	317.1	7.383	8.8	9.1	2.14	6698	4.44	4.00
007176268-09	OBS	No	58.906583	179.024332	178.2	3.792	7.3	7.4	2.14	6698	4.51	72.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007176268-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007176268-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007176268-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007176268-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007176268-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_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.

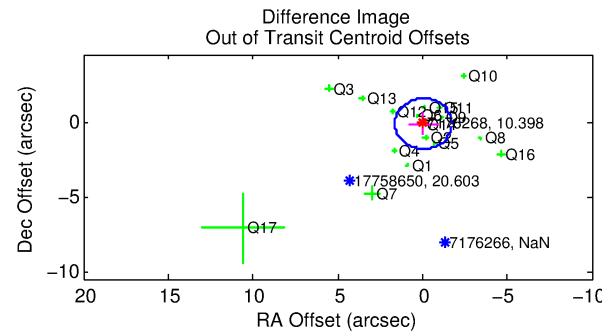
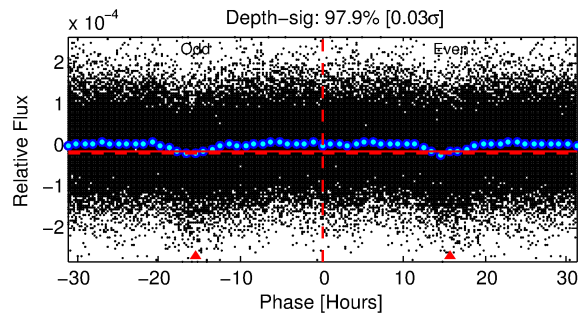
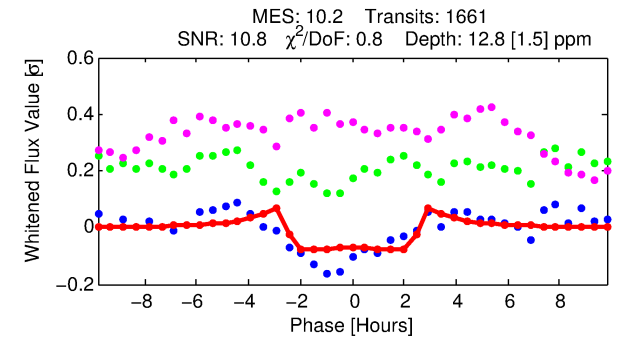
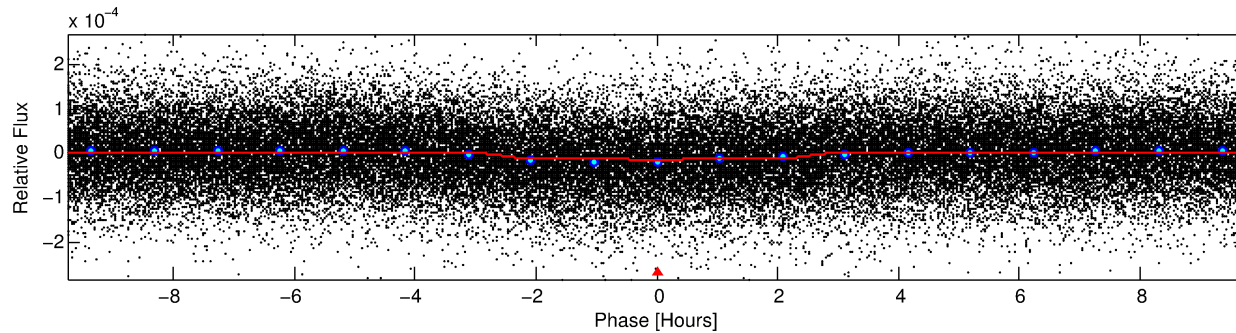
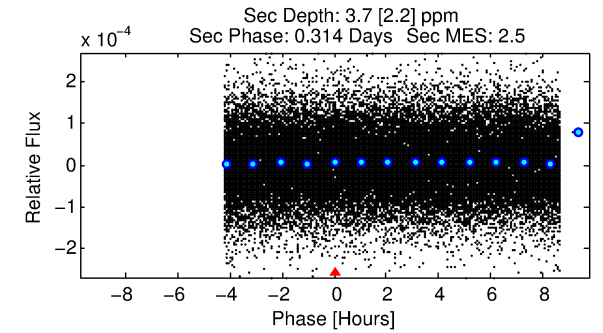
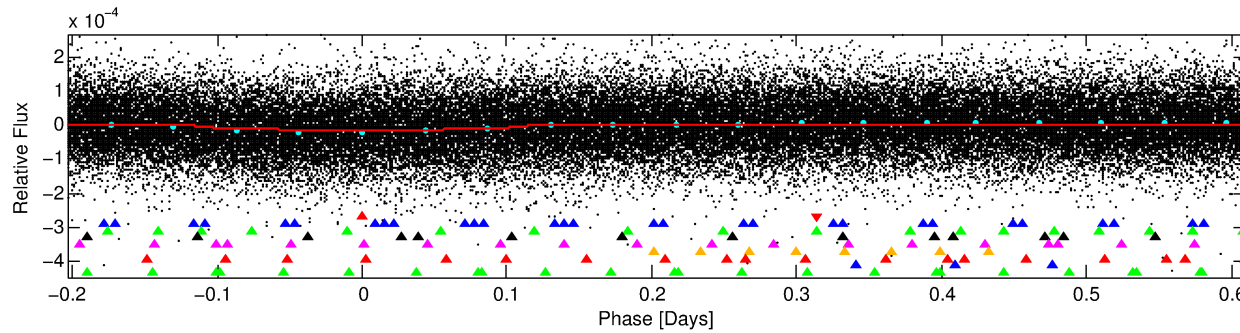
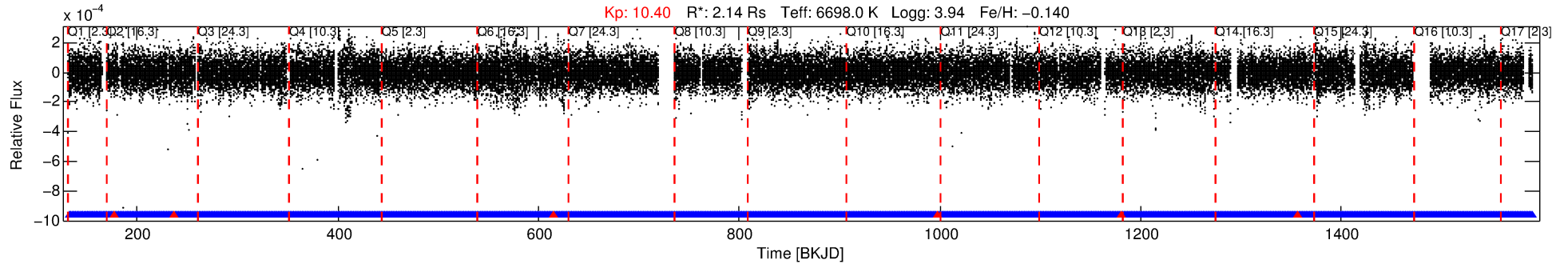
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007176268-01

No Significant Match Found

DV One-Page Summary

KIC: 7176268 Candidate: 1 of 9 Period: 0.814 d



DV Fit Results:

Period = 0.81375 [0.00001] d
Epoch = 132.0602 [0.0023] BKJD
Rp/R* = 0.0036 [0.0009]
a/R* = 1.15 [0.39]
b = 0.79 [0.67]
Seff = 21912.38 [9408.02]
Teq = 3102 [333] K
Rp = 0.84 [0.32] Re
a = 0.0194 [0.0051] AU
Ag = 1.09 [0.96] [0.09σ]
Teffp = 4898 [959] K [1.77σ]

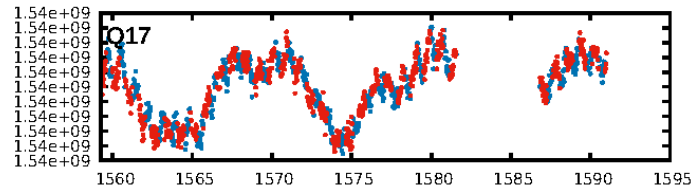
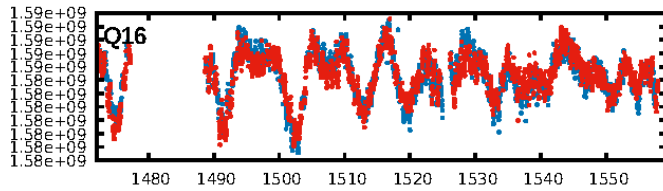
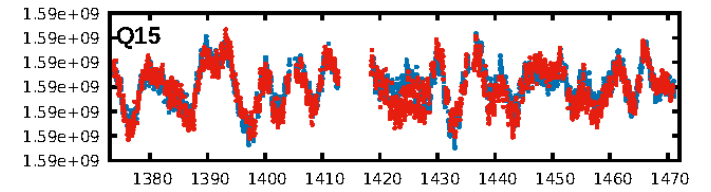
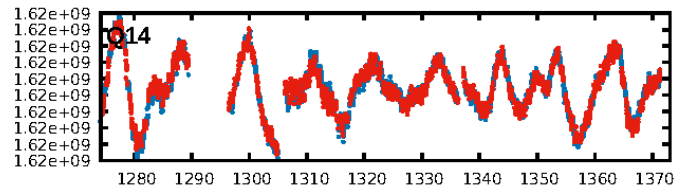
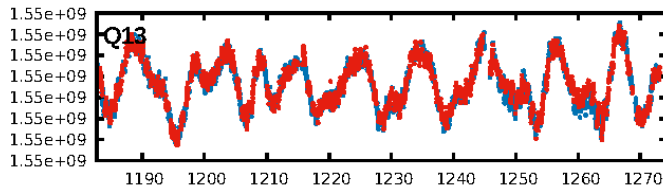
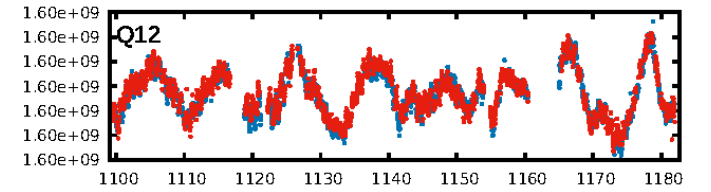
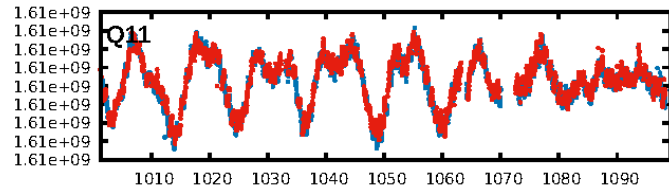
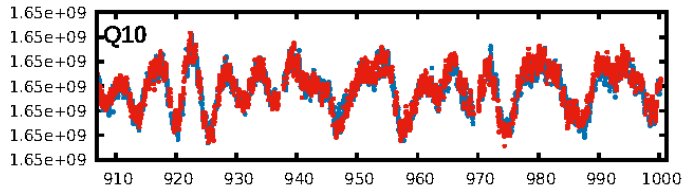
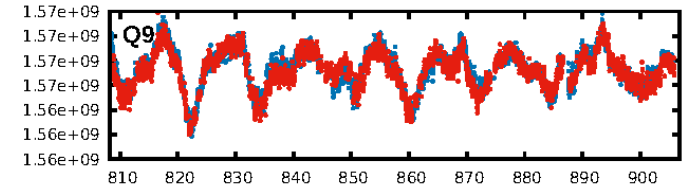
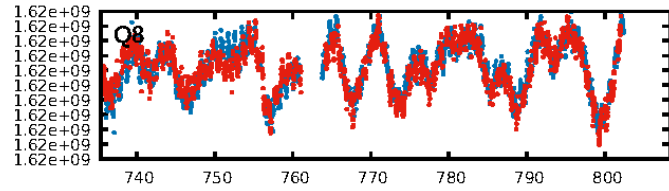
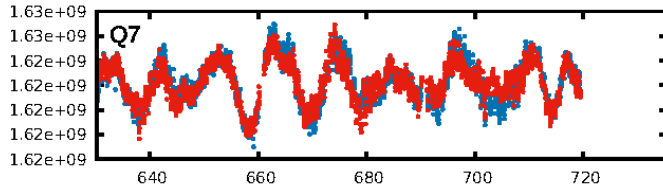
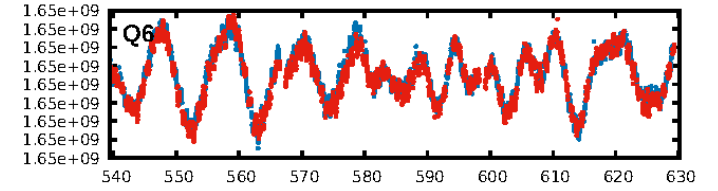
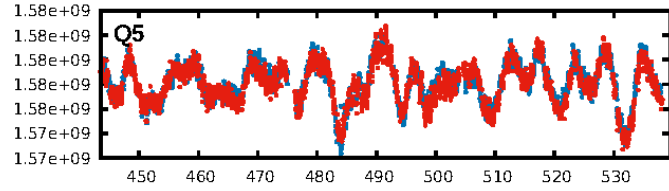
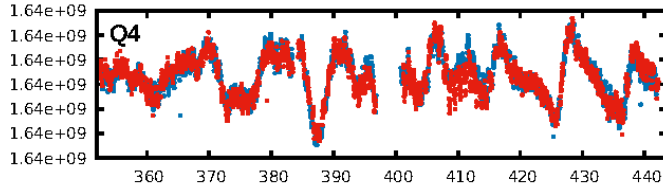
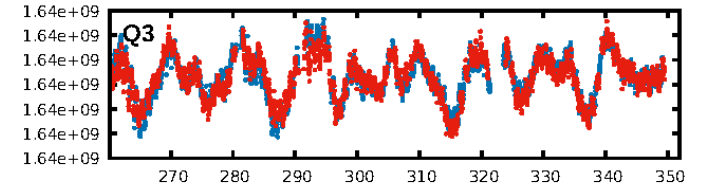
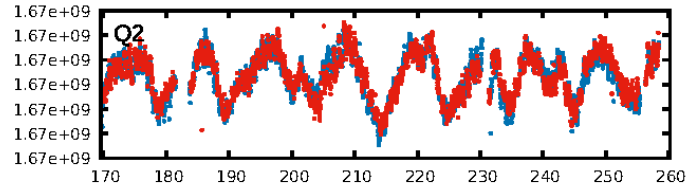
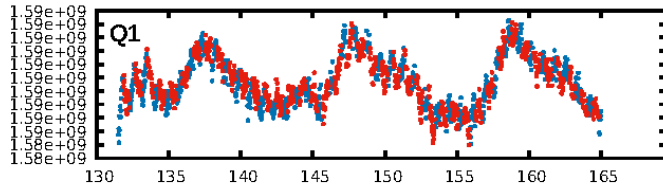
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [187.33σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 9.20e-22
RollingBand-fgt: 1.00 [1580/1586]
GhostDiagnostic-chr: 4.516
Centroid-sig: 12.4%
Centroid-so: 0.632 arcsec [0.95σ]
OotOffset-rm: 0.139 arcsec [0.25σ]
KicOffset-rm: 0.514 arcsec [0.72σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.29 [5/17]
DiffImageOverlap-fno: 1.00 [17/17]

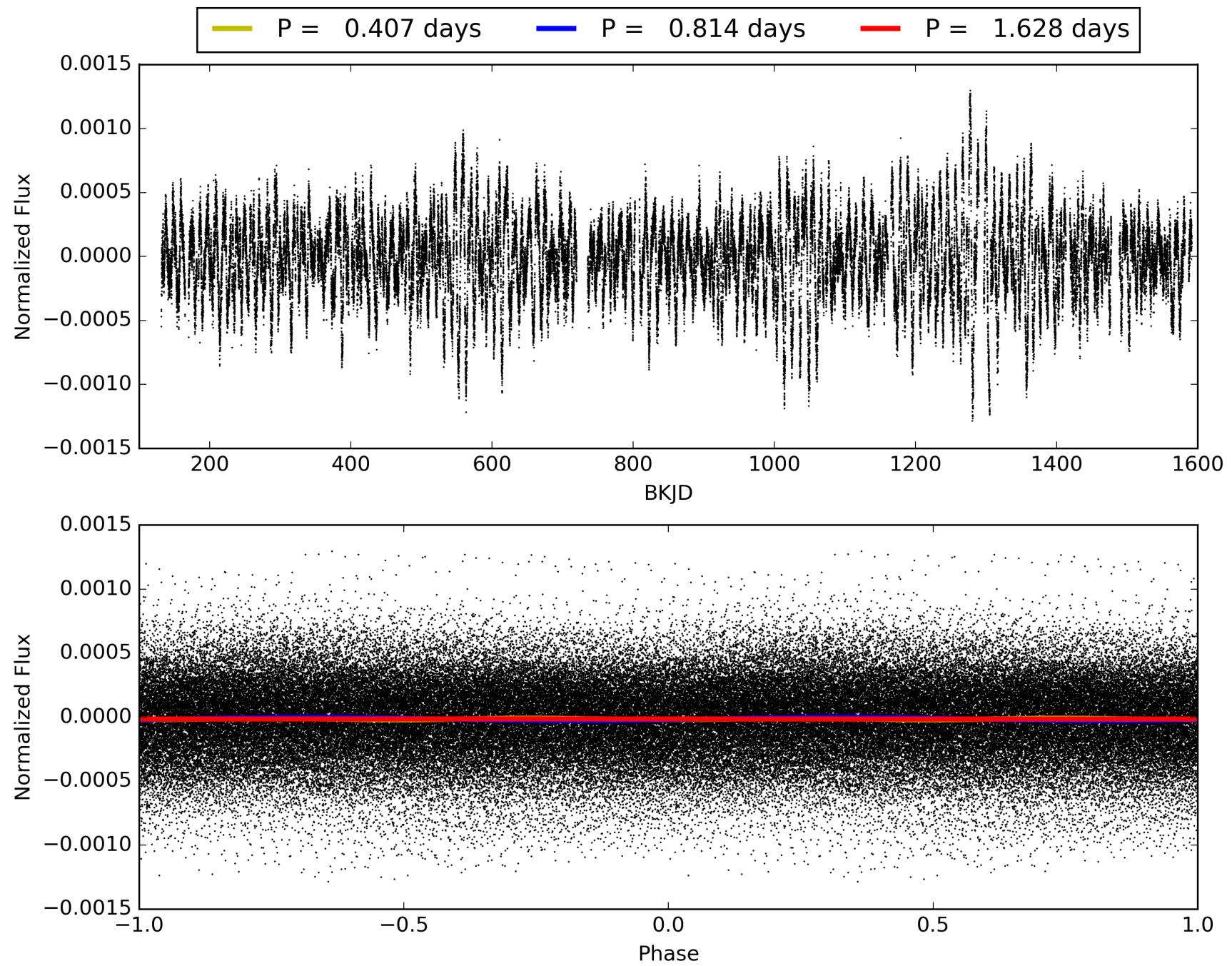
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 01:49:40 Z

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

TCE 007176268-01, PDC Light Curves

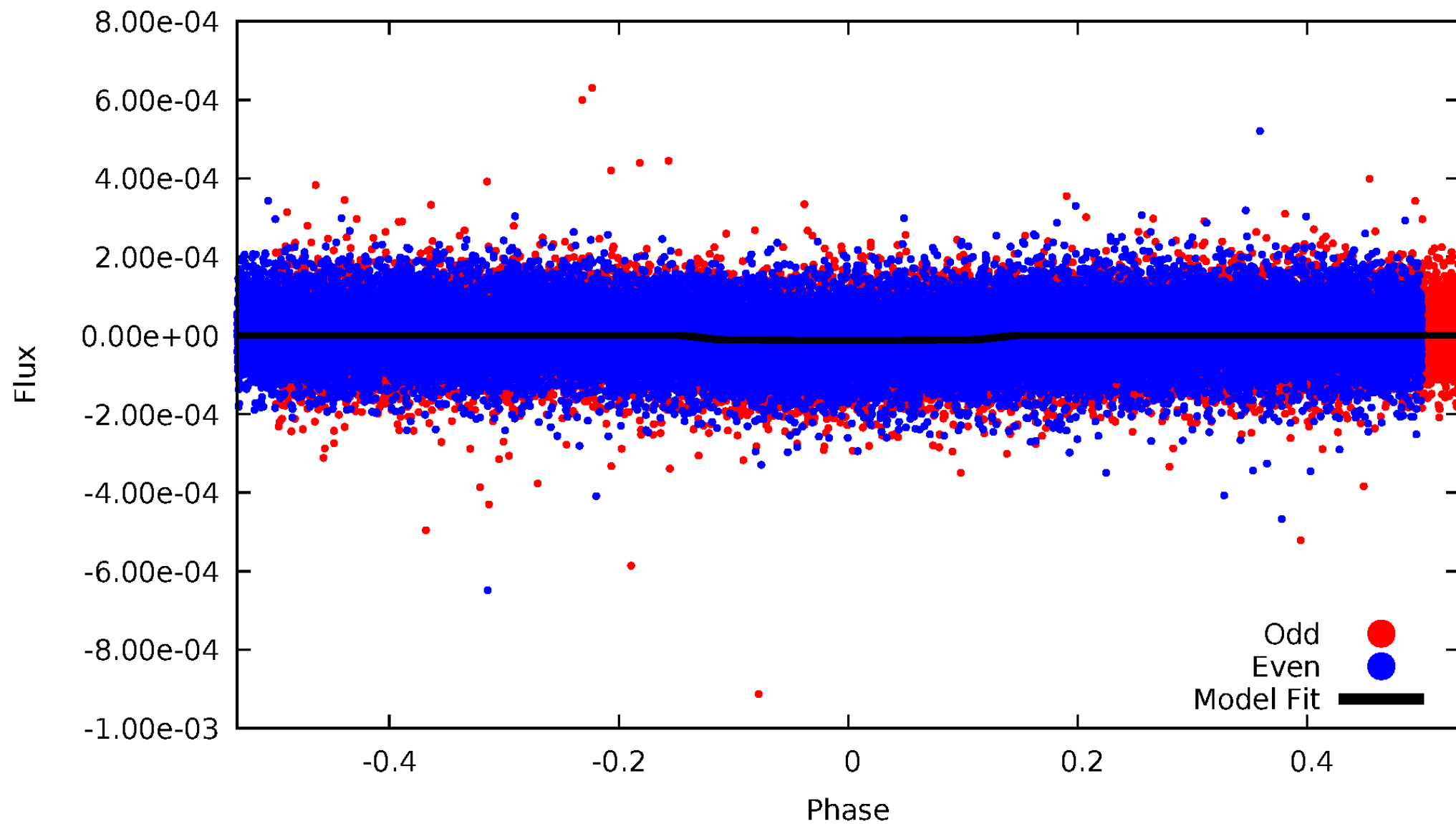


TCE 007176268-01



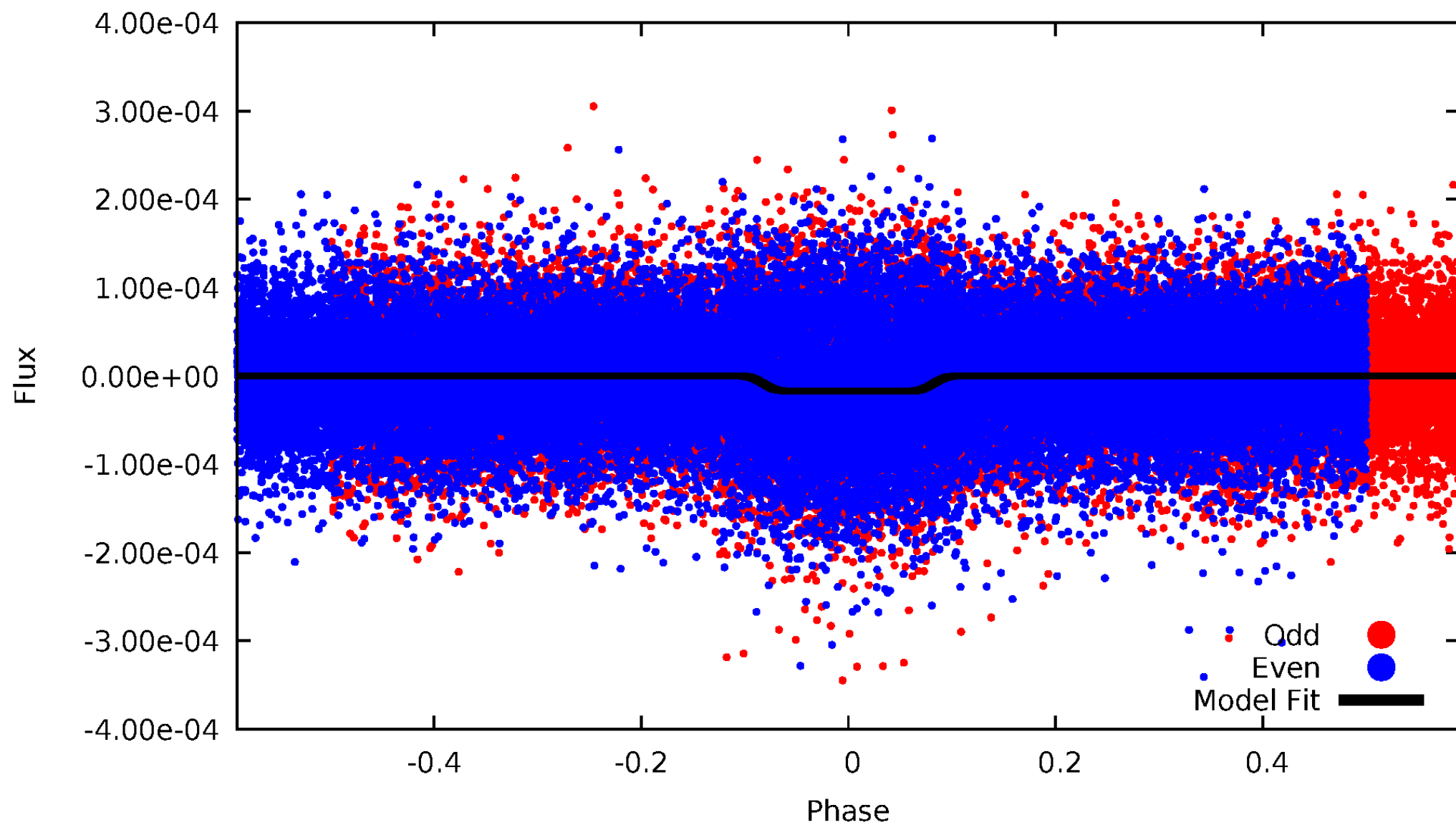
DV Odd/Even

TCE 007176268-01

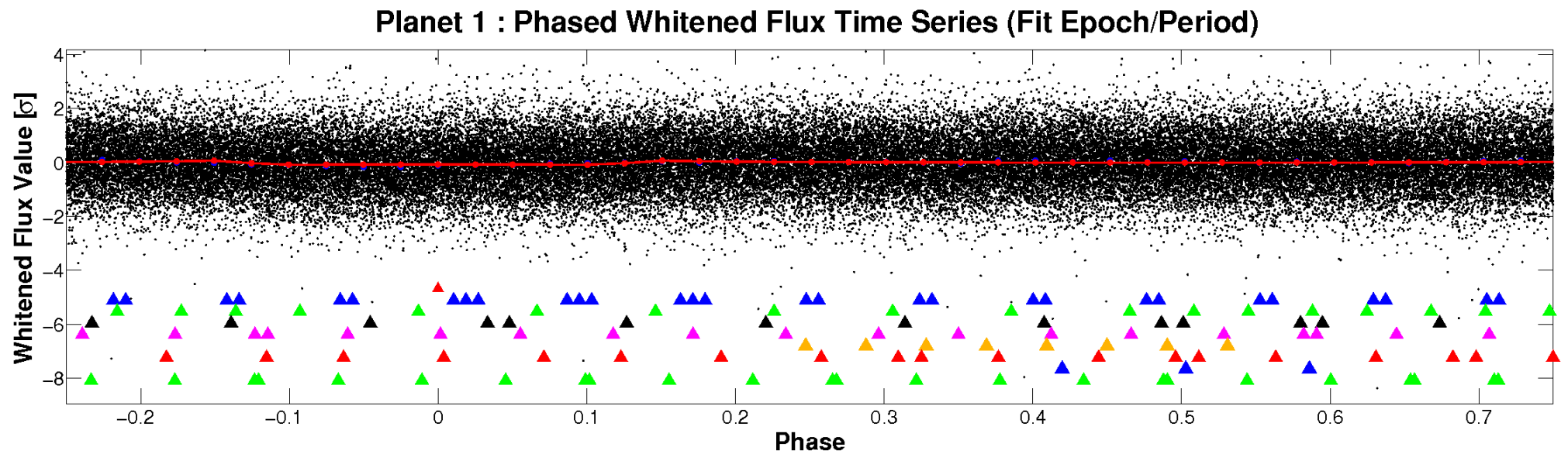
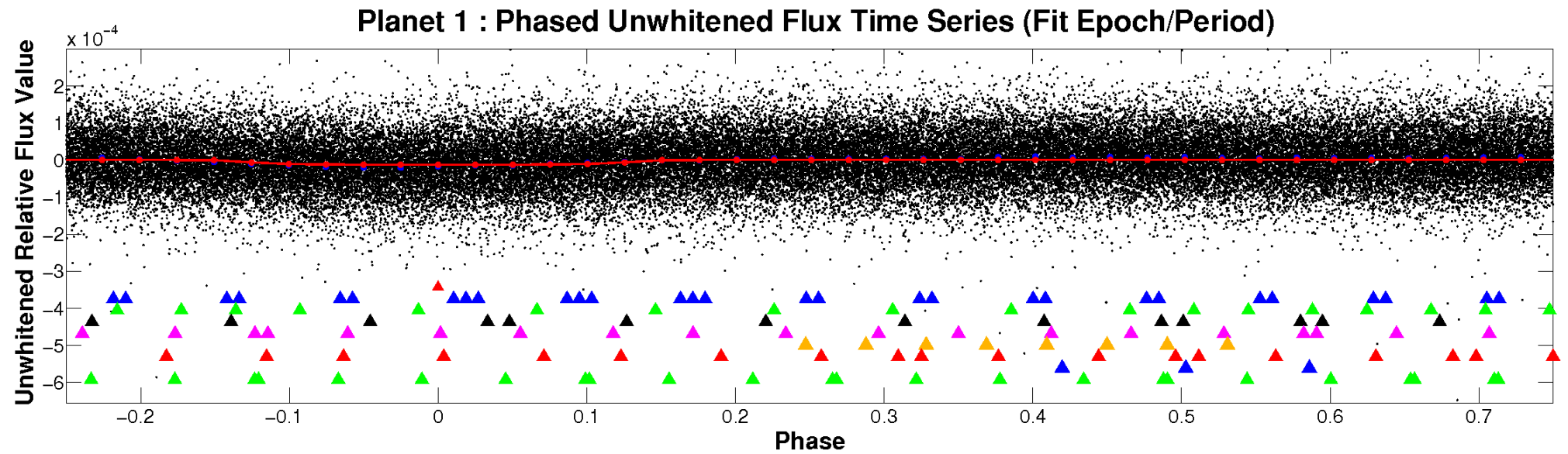


ALT Odd/Even

TCE 007176268-01

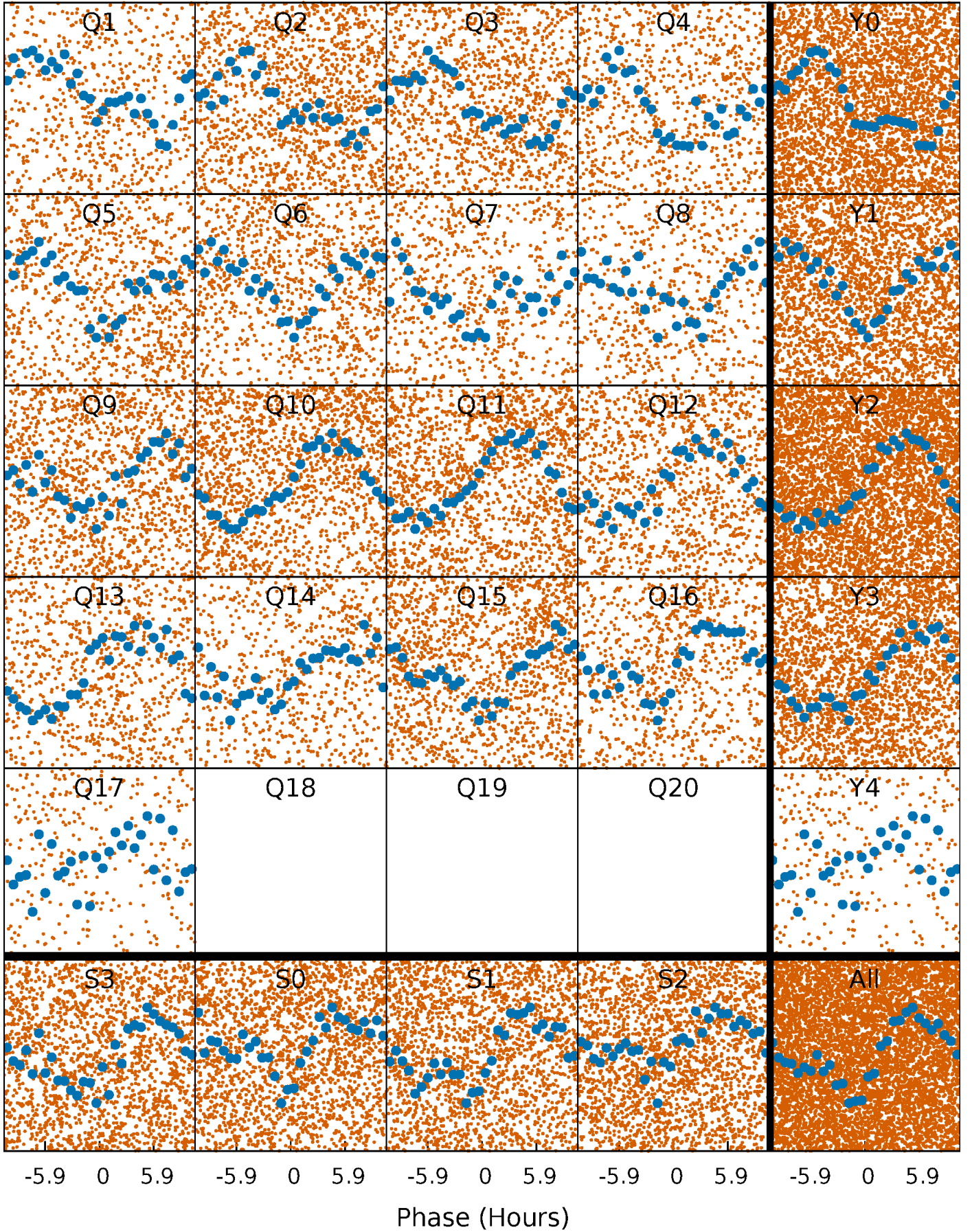


Non-Whitened Vs. Whitened Light Curve



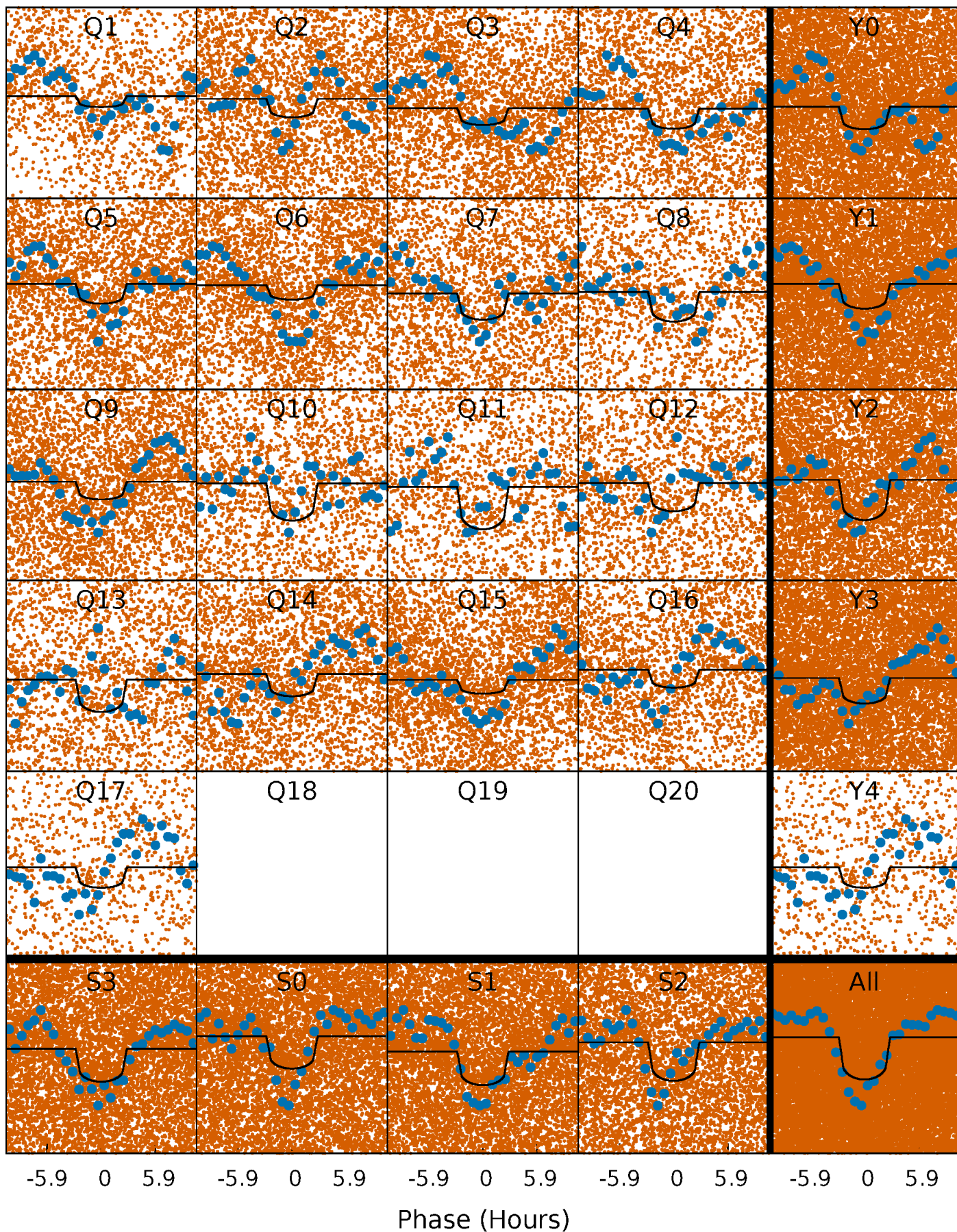
PDC Quarter-Phased Transit Curves

TCE 007176268-01 P= 0.813753 Days $T_0=132.060153$ (BKJD)



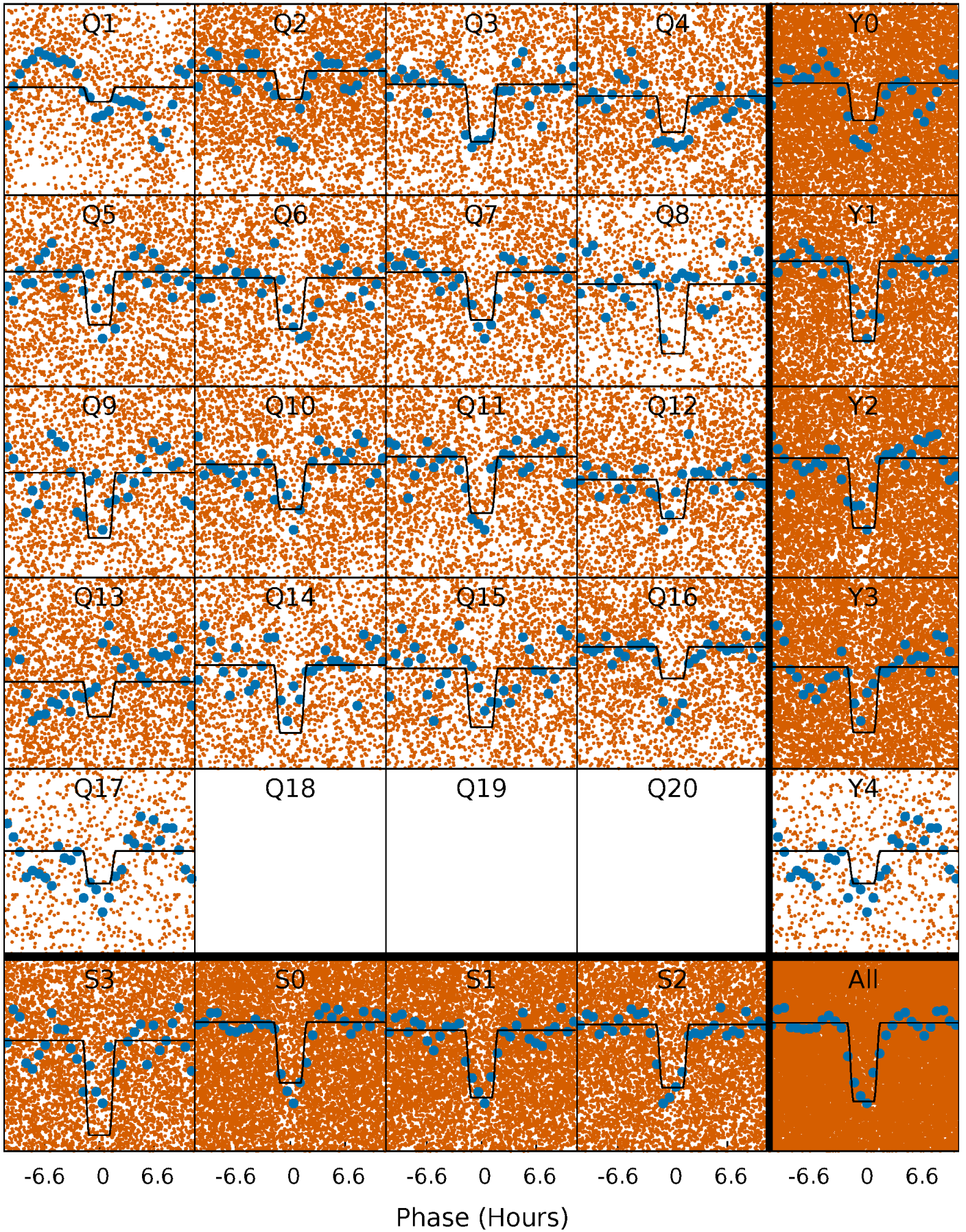
DV Quarter-Phased Transit Curves

TCE 007176268-01 P= 0.813753 Days $T_0=132.060153$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

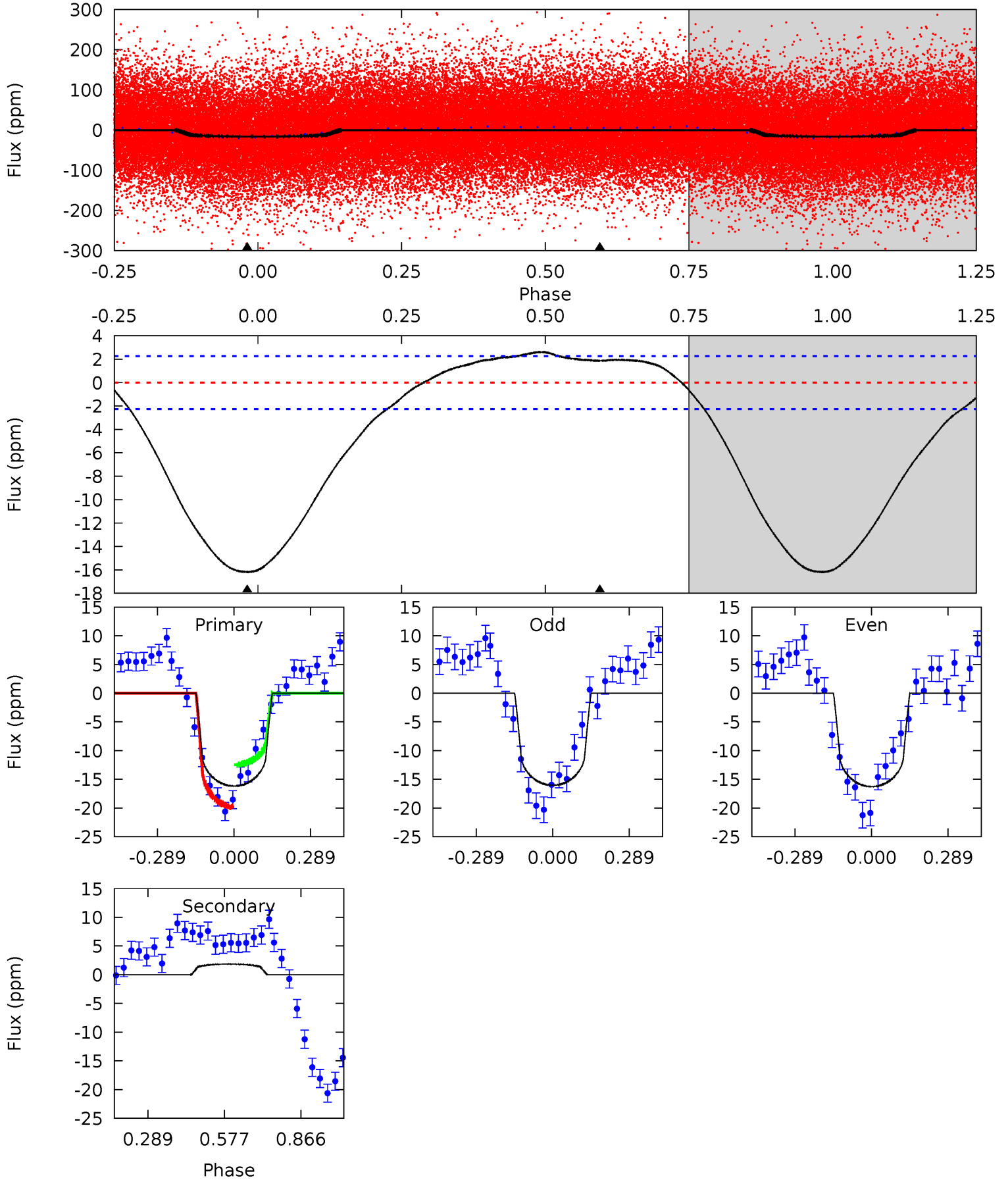
TCE 007176268-01 P= 0.813720 Days $T_0=132.047390$ (BKJD)



DV Model-Shift Uniqueness Test

007176268-01, P = 0.813753 Days, E = 131.246400 Days

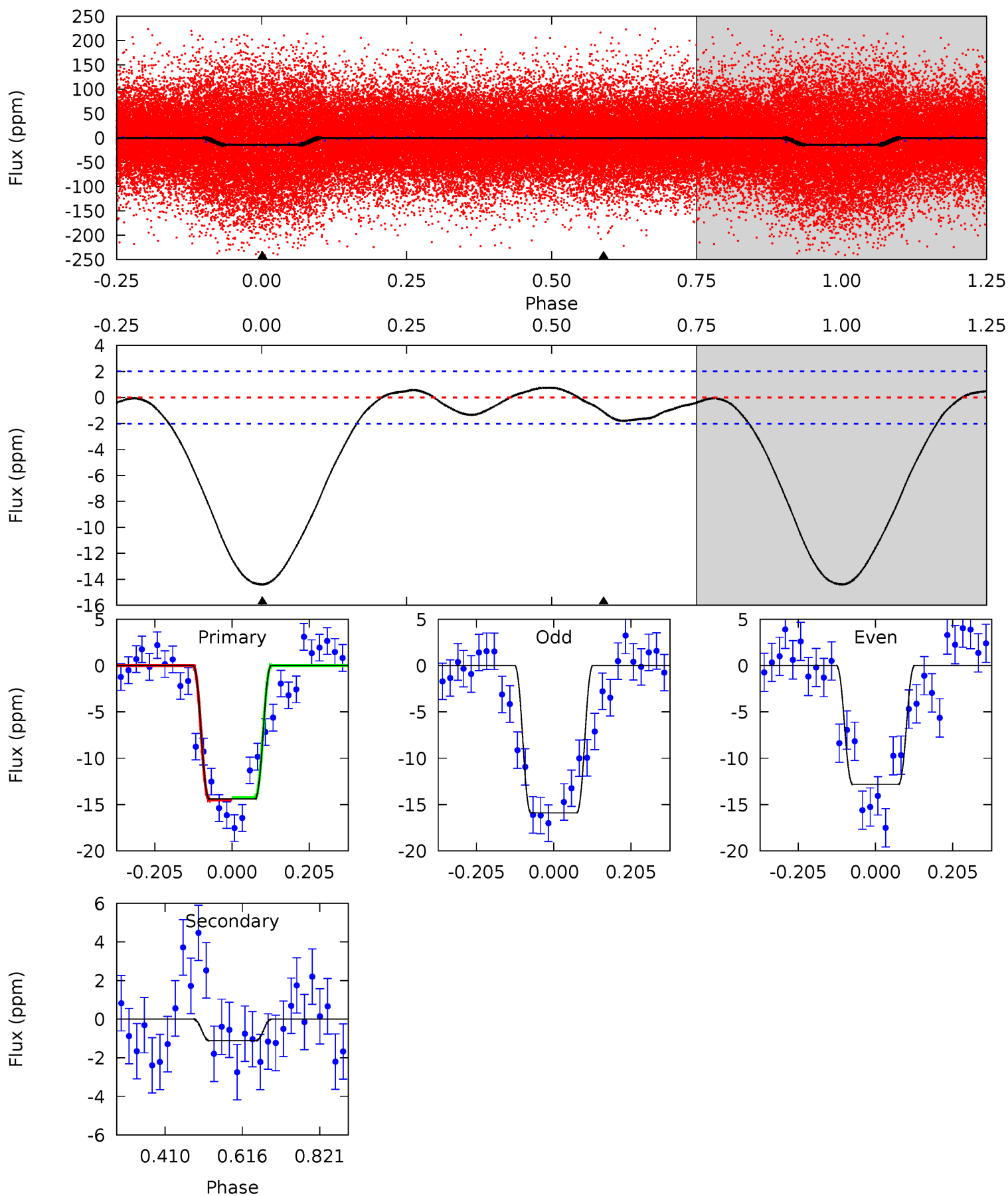
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.0	-3.57	0	0	4.34	1.06	1.66	31.0	31.0	-3.57	-3.57	0.22	1.05	0.14	7.16



Alt Model-Shift Uniqueness Test

007176268-01, P = 0.813720 Days, E = 131.233670 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
31.4	2.44	0	0	4.41	1.27	1.56	31.4	31.4	2.44	2.44	3.36	1.04	0.05	0.27



Stellar Parameters For KIC 007176268

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6698^{+151}_{-184}	$3.945^{+0.240}_{-0.129}$	$-0.140^{+0.300}_{-0.250}$	$2.138^{+0.501}_{-0.613}$	$1.469^{+0.186}_{-0.256}$	$0.212^{+0.314}_{-0.082}$
	+2%/-3%	+6%/-3%	+214%/-179%	+23%/-29%	+13%/-17%	+148%/-39%
Source	PHO1	FLK73	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 007176268-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	2 ± 1	$0.81^{+0.25}_{-0.23}$	4286^{+269}_{-322}	-4702^{+310}_{-476}	$-0.568^{+0.269}_{-0.579}$
Alt.	-1 ± 0	$0.92^{+0.26}_{-0.23}$	4292^{+271}_{-321}	-2881^{+6396}_{-678}	$0.255^{+0.246}_{-0.123}$

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

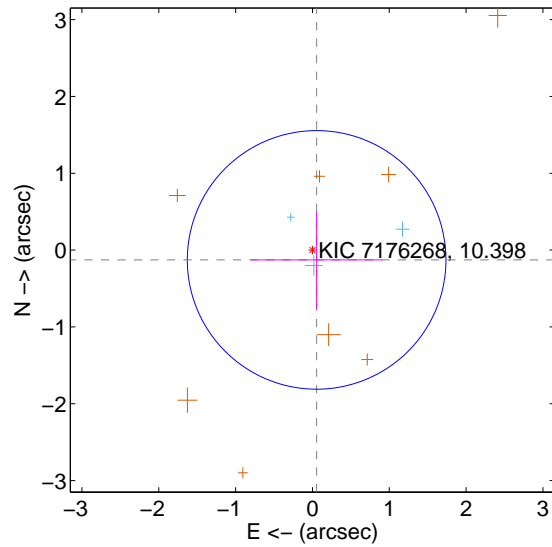
Supplemental centroid analysis for 007176268-01. **Kepler magnitude: 10.40.** Transit SNR 10.79

There are 5 quarters with good PRF difference image offsets

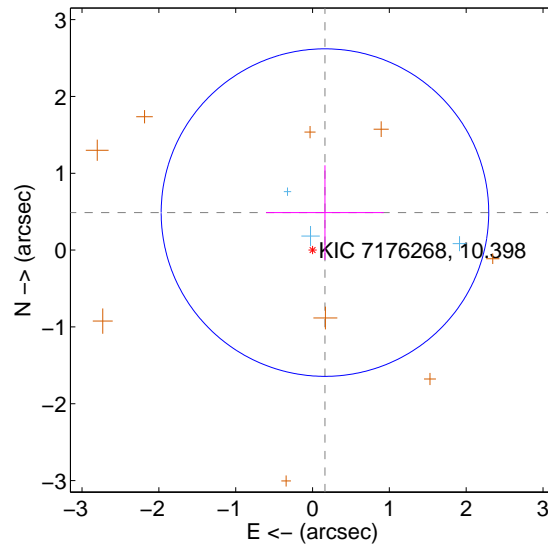
The direct PRF centroid is offset from the target star catalog position by about 0.85 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.139 ± 0.561	0.25	-0.055 ± 0.855	-0.128 ± 0.637
PRF-fit source offset from KIC position	0.514 ± 0.710	0.72	-0.162 ± 0.765	0.488 ± 0.615
photometric centroid source offset	0.63 ± 0.66	0.95	0.49 ± 0.74	-0.40 ± 0.54

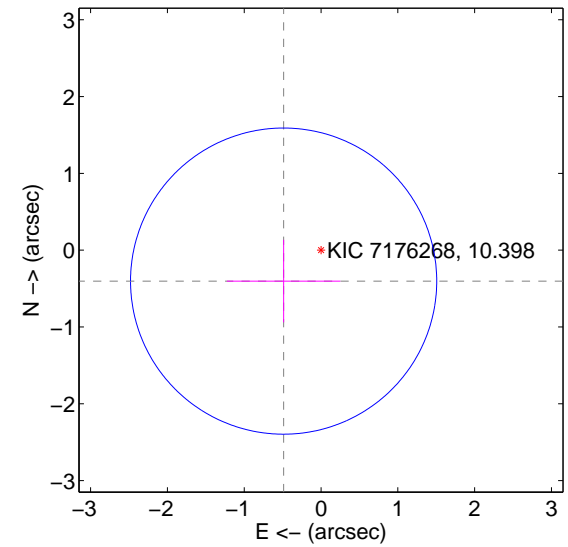
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

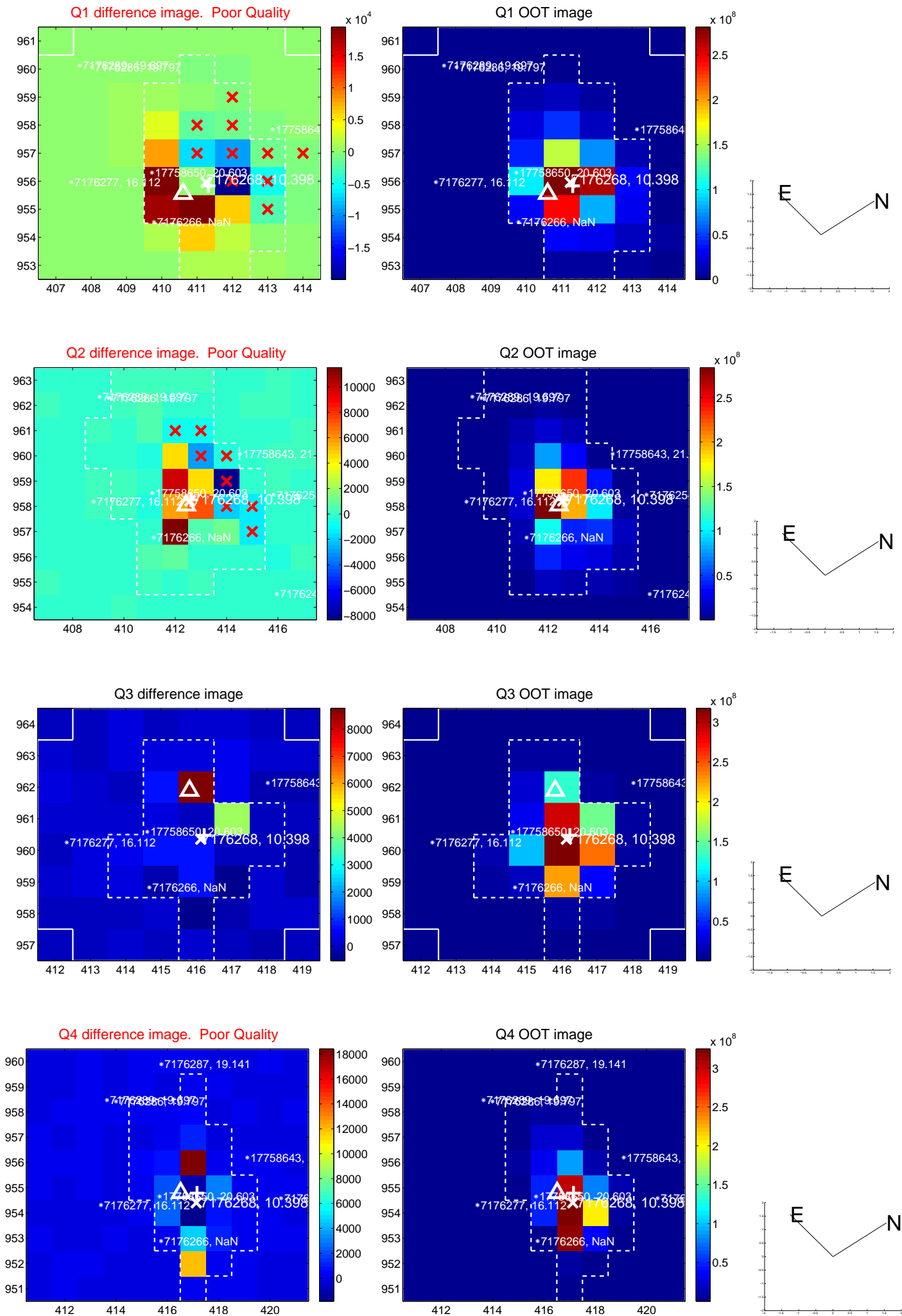


offset from photometric centroids

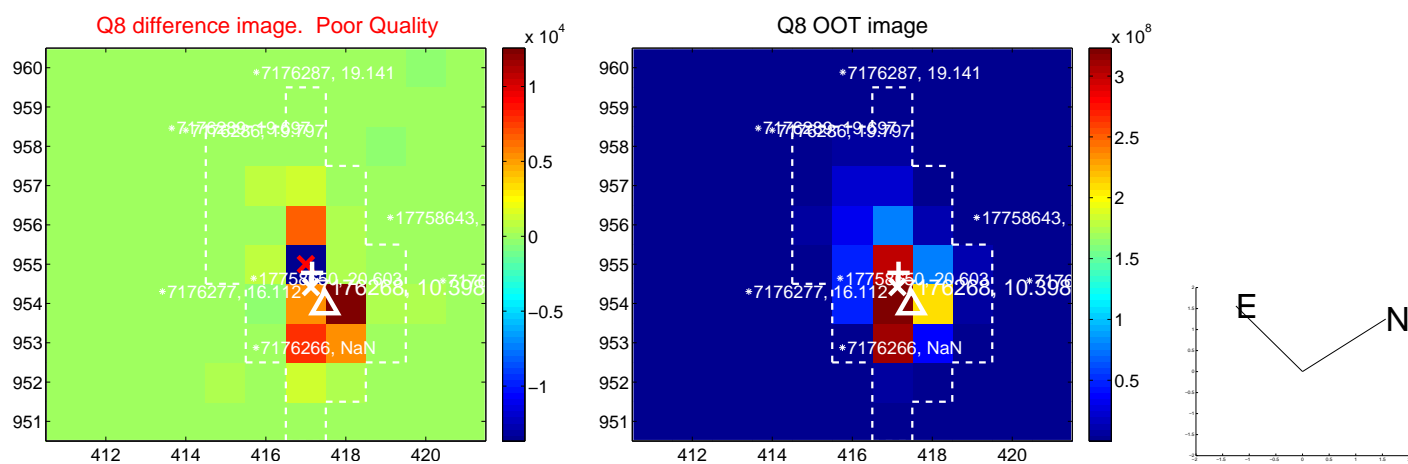
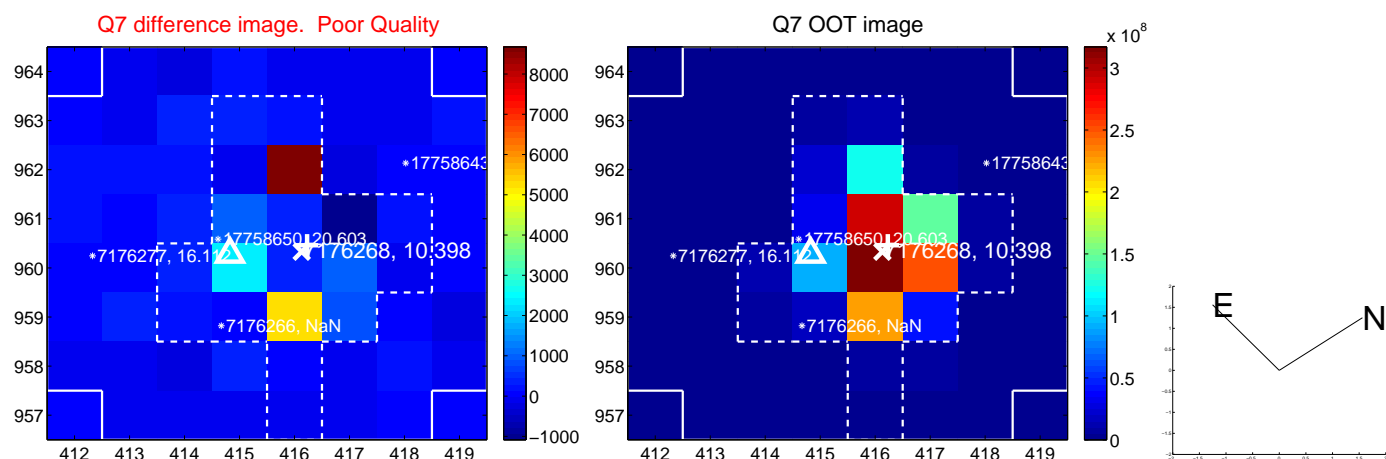
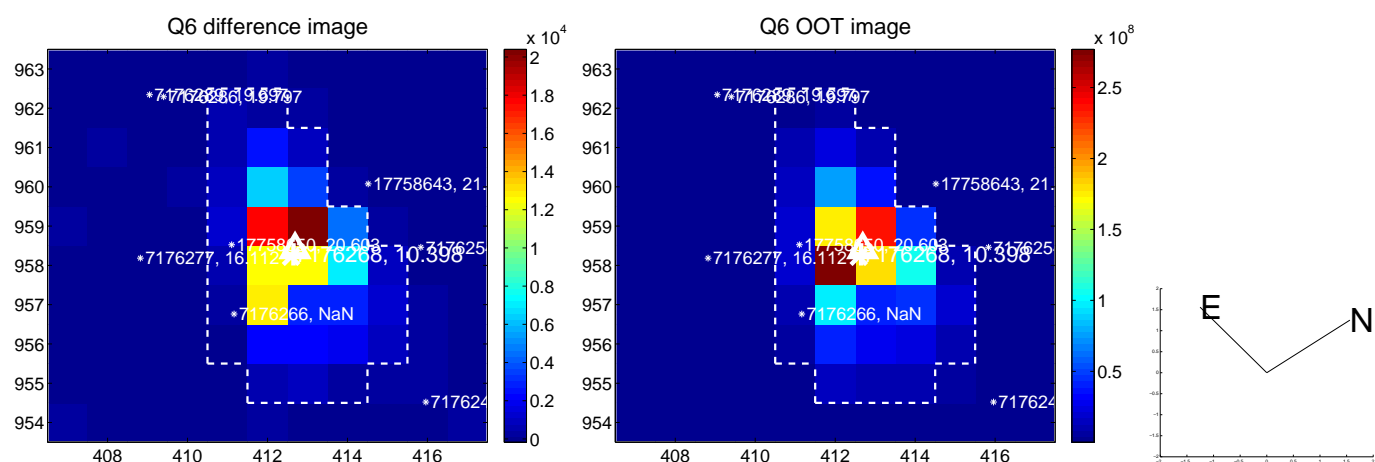
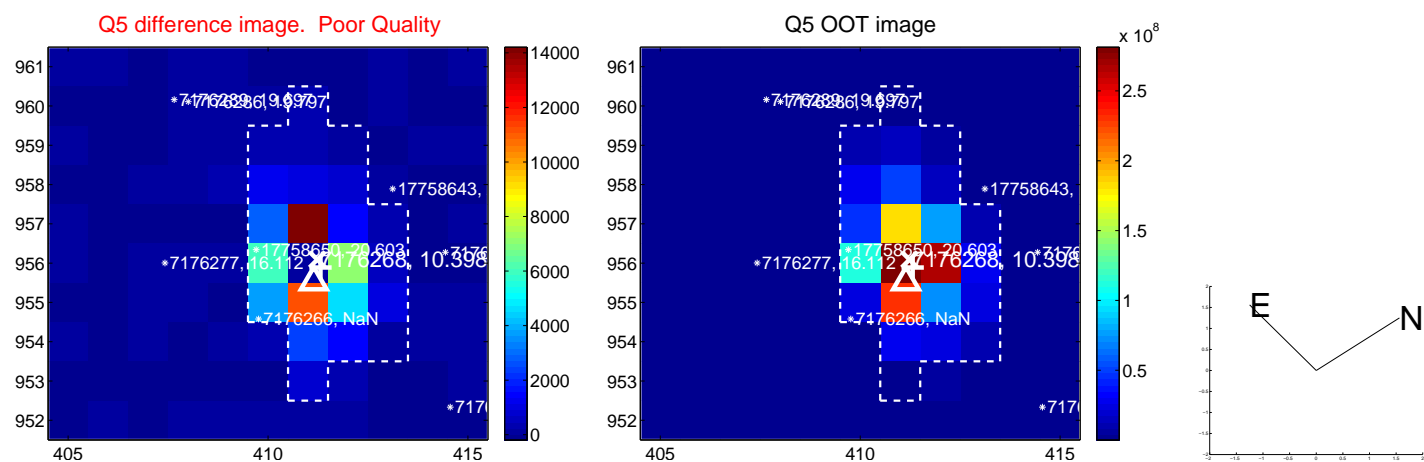


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

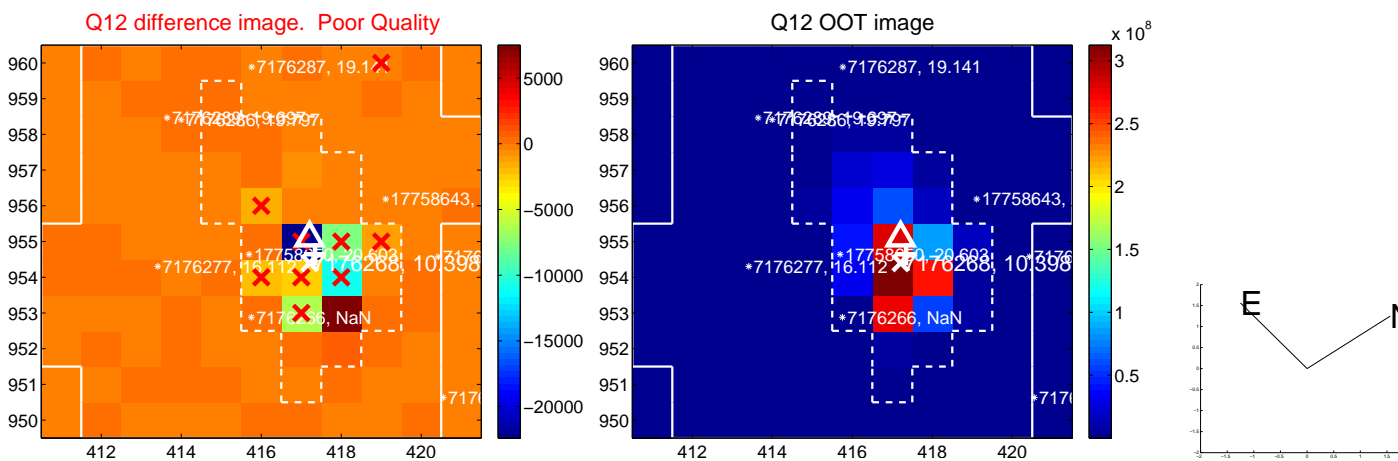
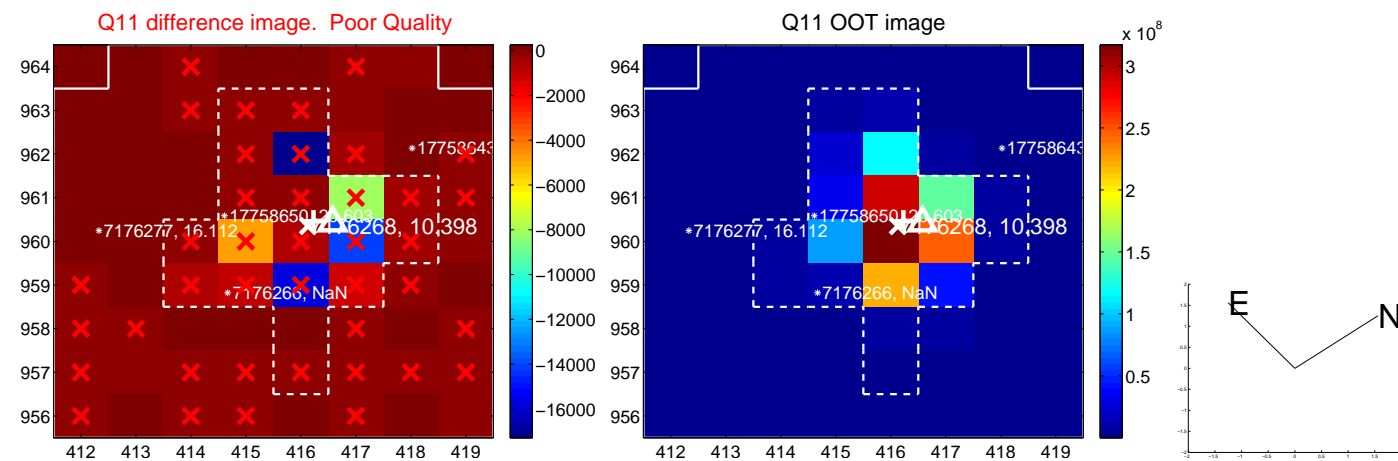
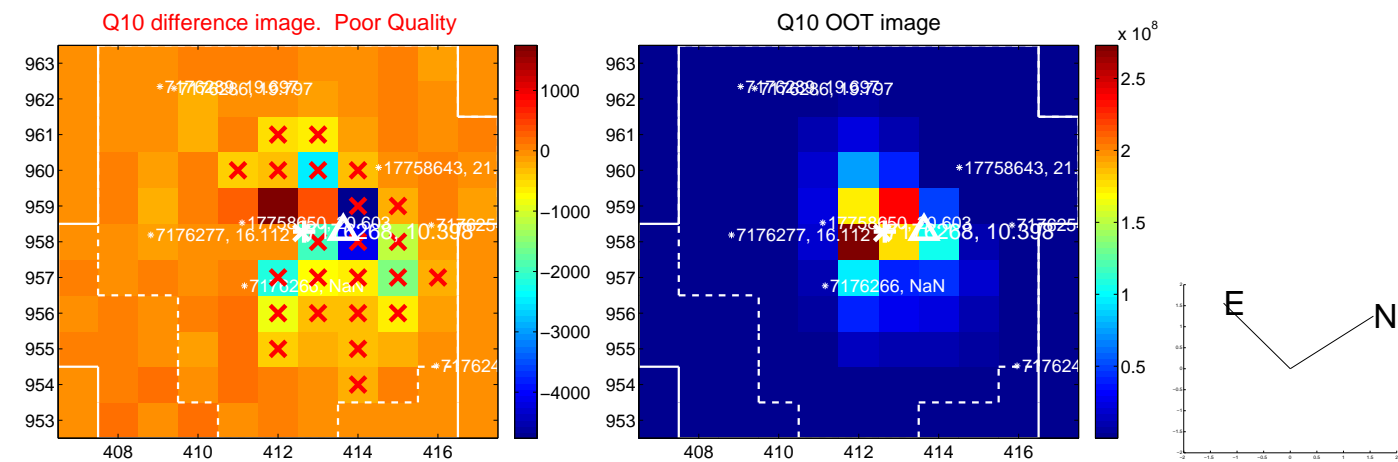
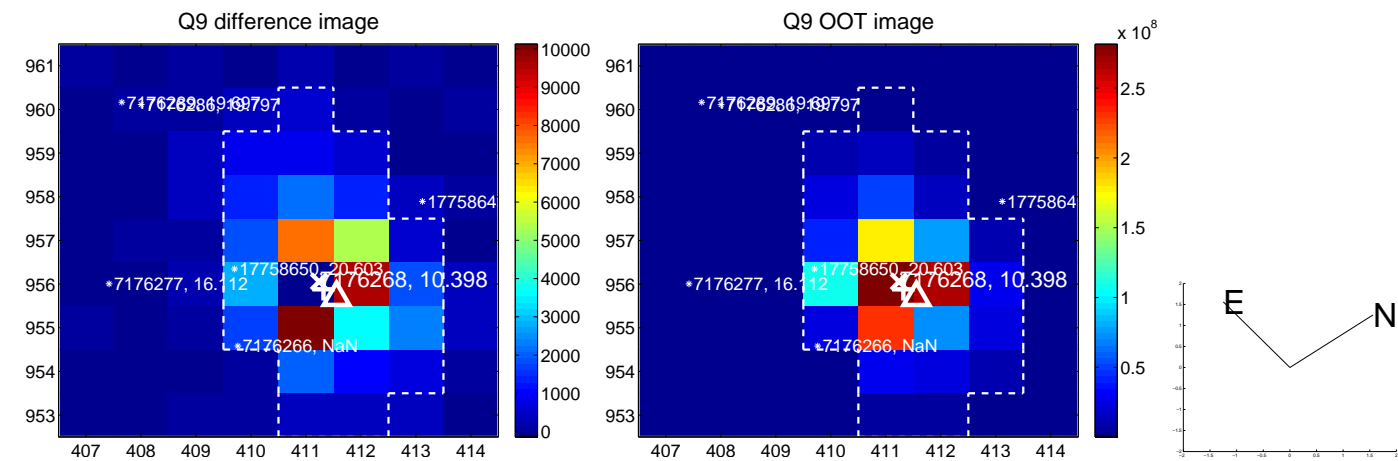
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



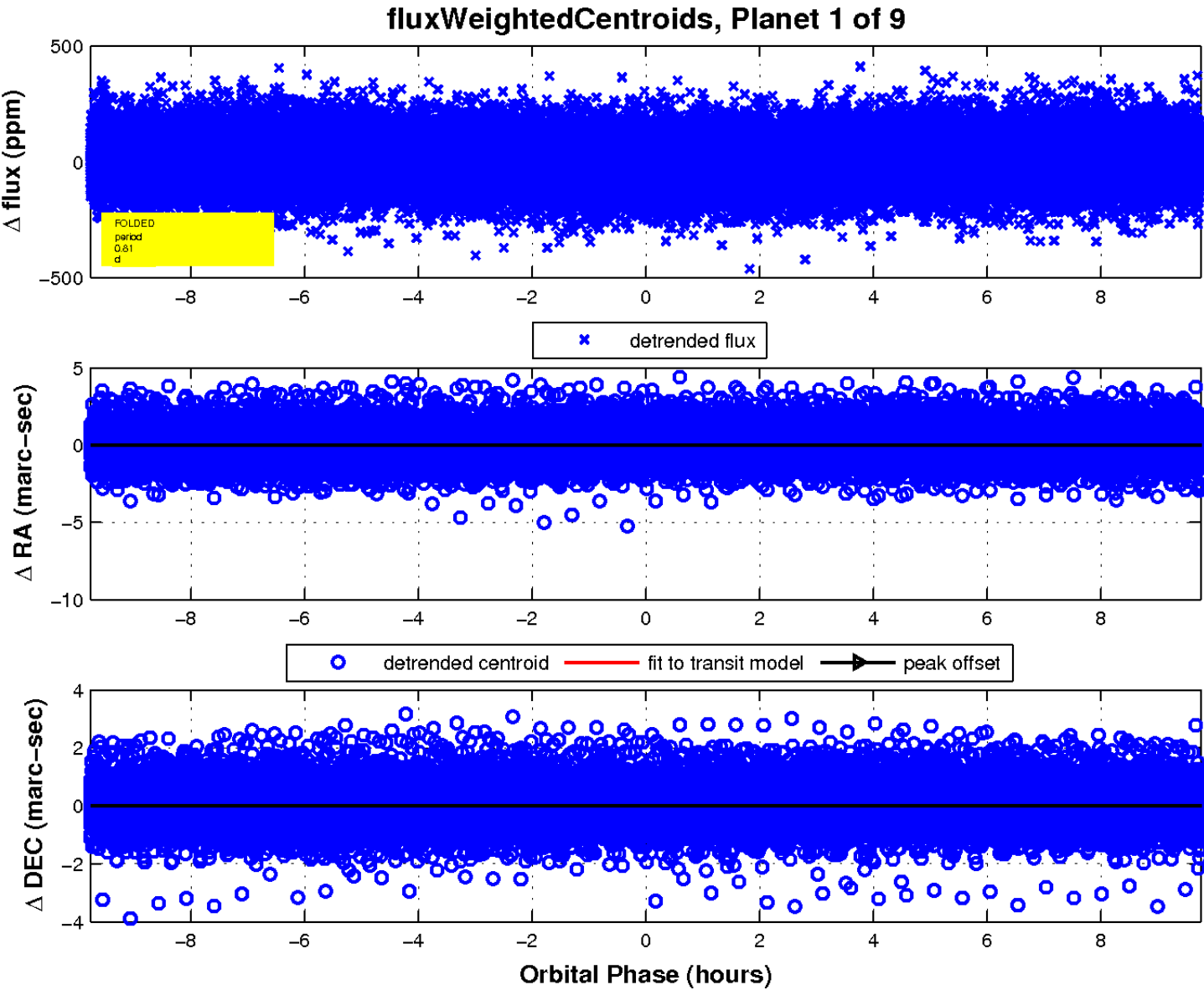
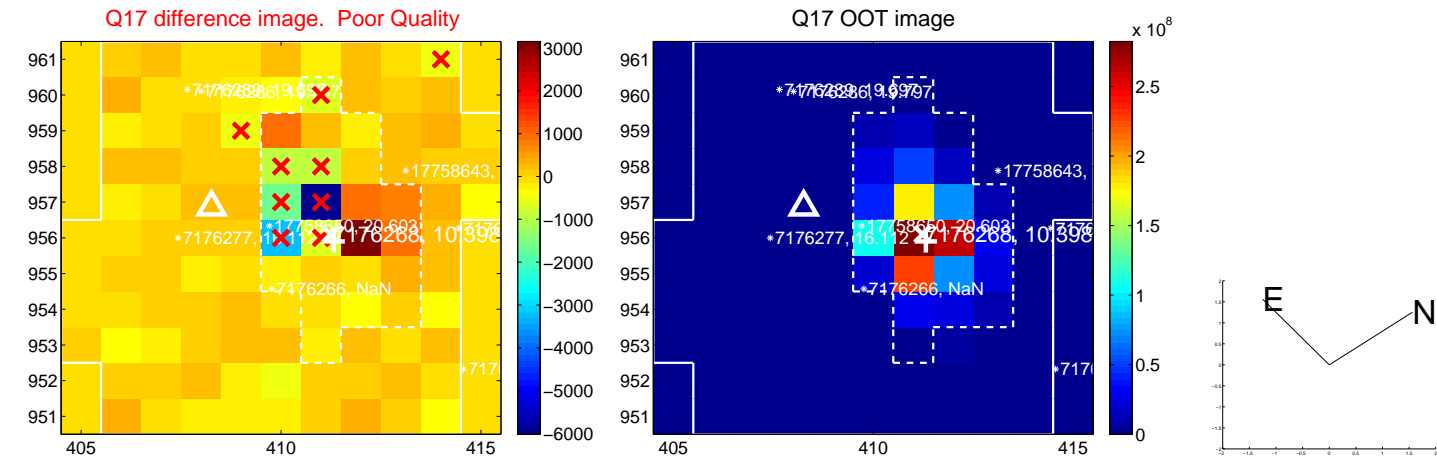
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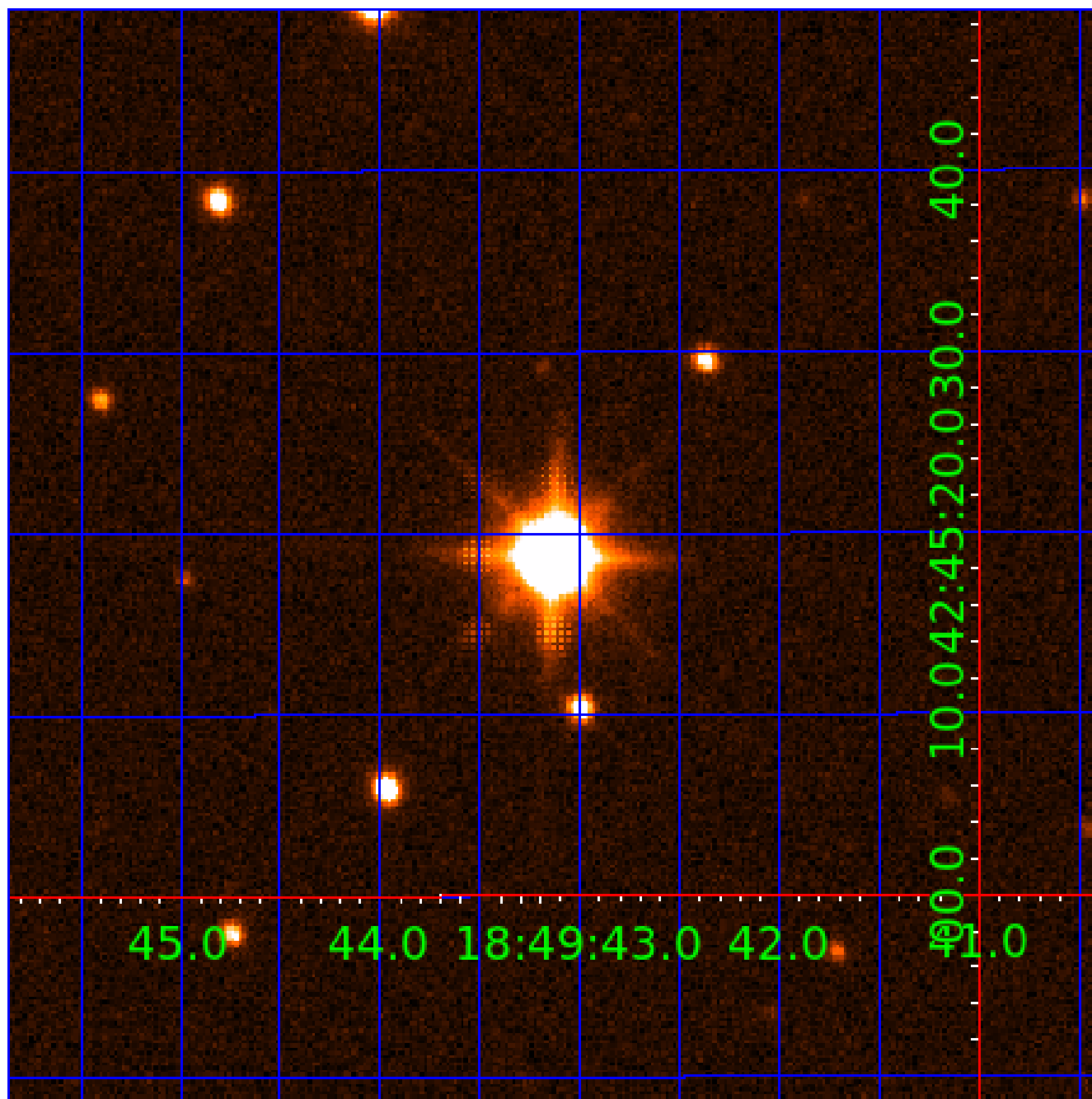


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UKIRT Image

Declination



KIC 007176268

Q1-17 DR25 TCE Parameters

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007176268-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007176268-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007176268-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007176268-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_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.

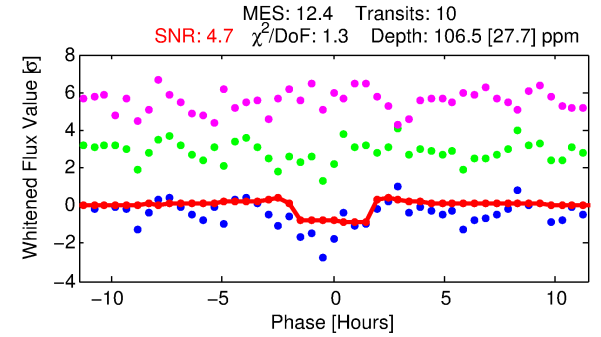
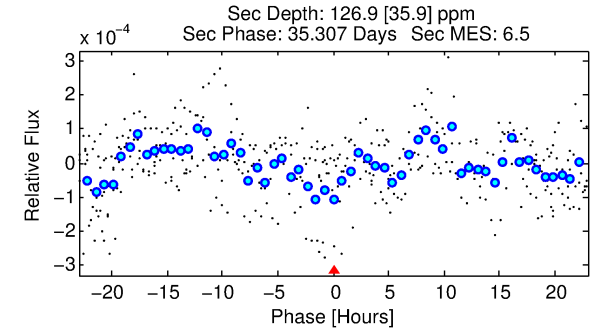
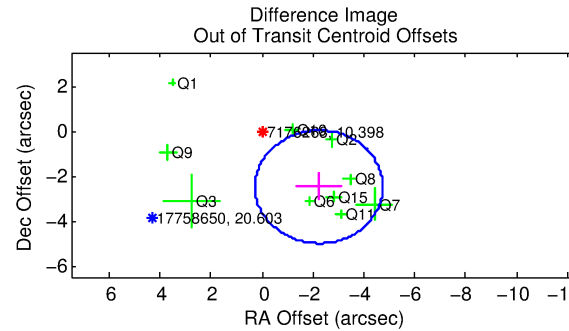
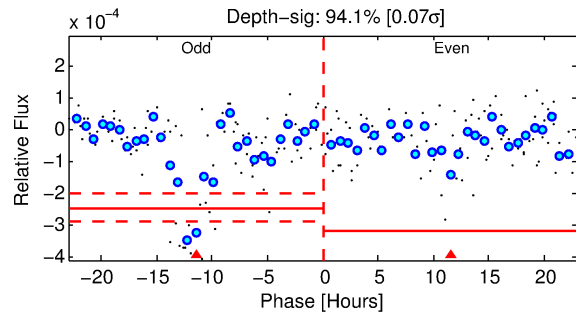
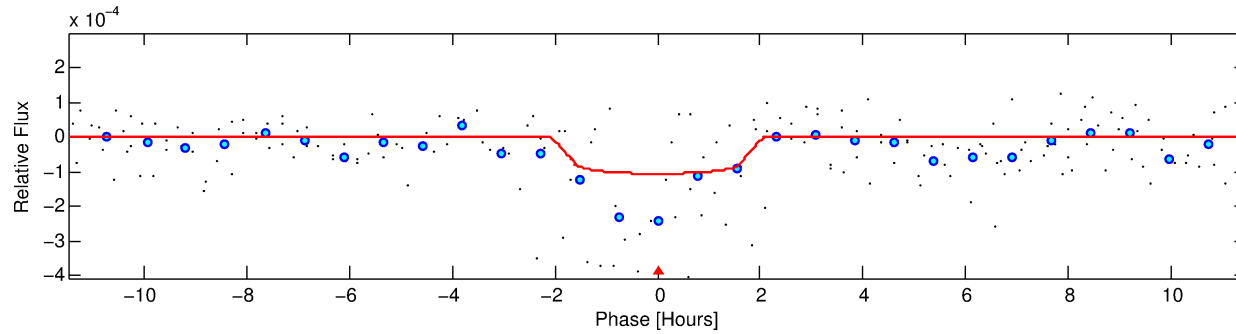
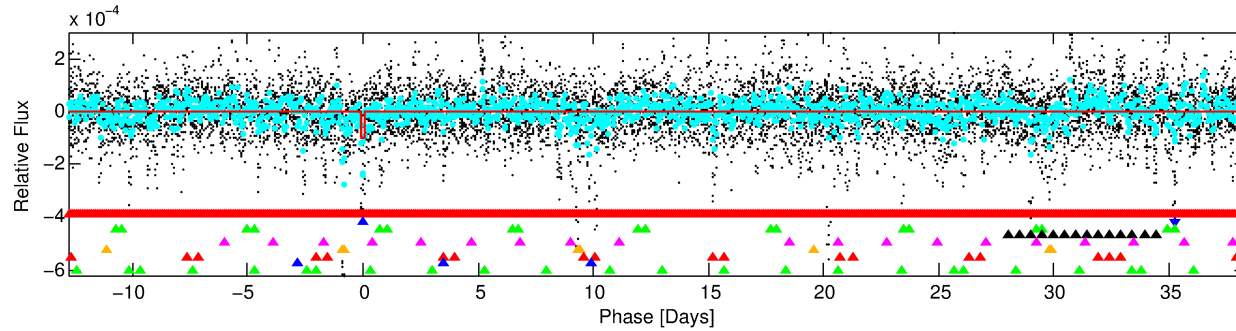
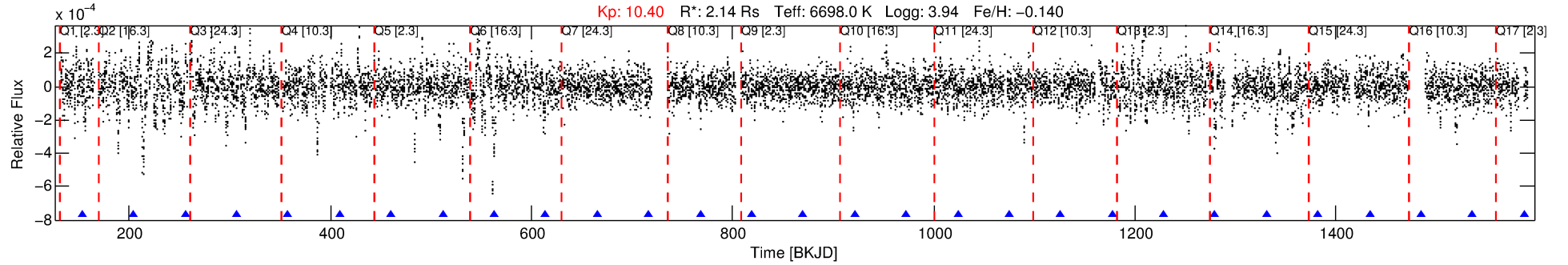
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007176268-02

No Significant Match Found

DV One-Page Summary

KIC: 7176268 Candidate: 2 of 9 Period: 51.204 d



DV Fit Results:

Period = 51.20439 [0.00108] d
Epoch = 153.3504 [0.0205] BKJD
Rp/R* = 0.0108 [0.0095]
a/R* = 52.17 [266.78]
b = 0.87 [1.40]
Seff = 87.55 [37.59]
Teq = 780 [84] K
Rp = 2.52 [2.33] Re
a = 0.3068 [0.0815] AU
Ag = 1032.53 [1888.60] [0.55 σ]
Teffp = 6836 [3050] K [1.98 σ]

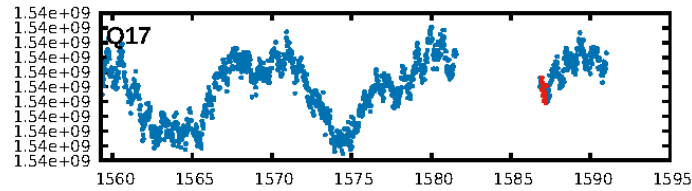
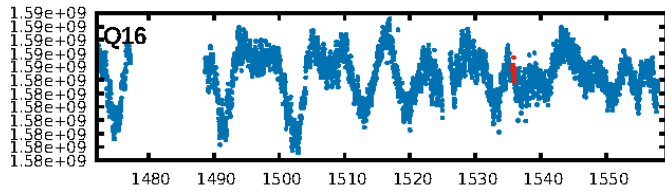
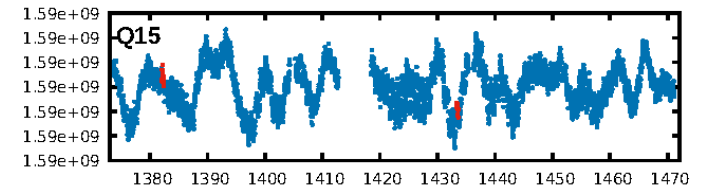
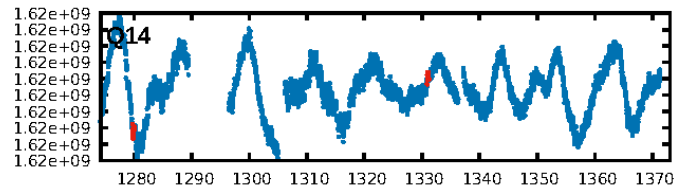
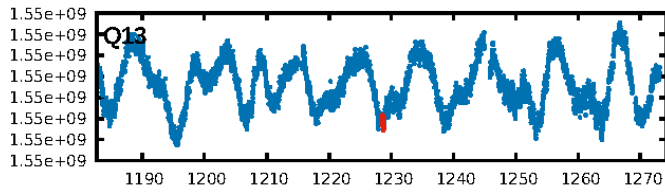
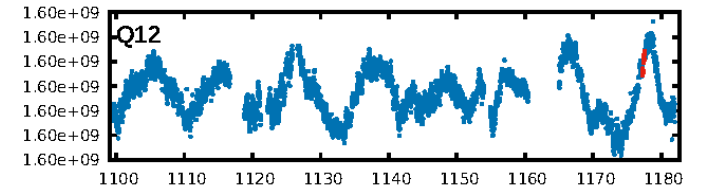
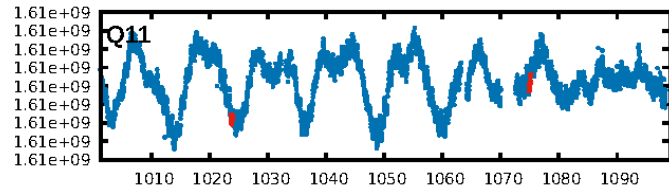
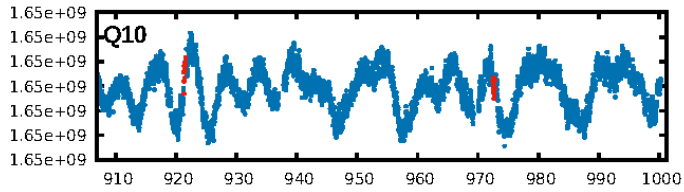
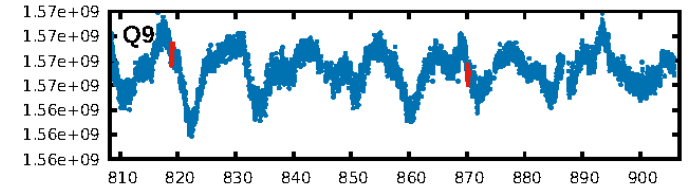
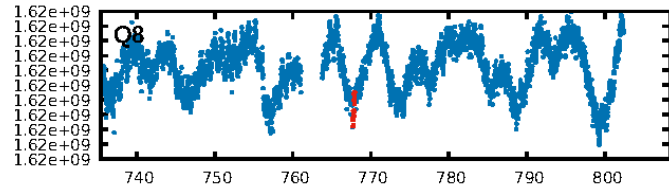
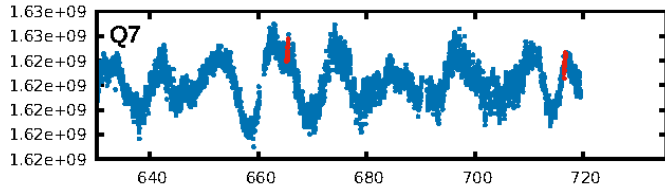
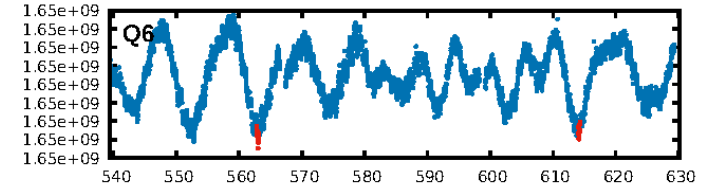
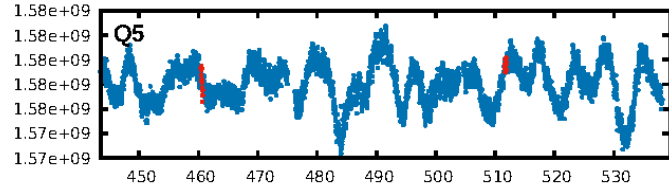
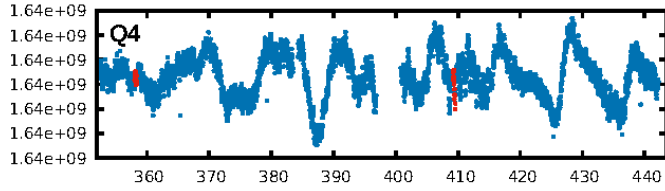
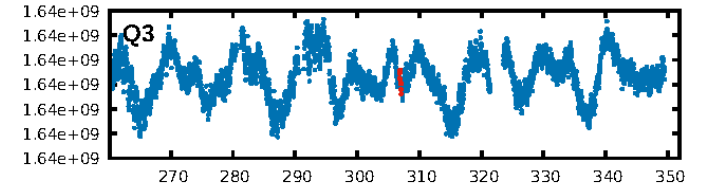
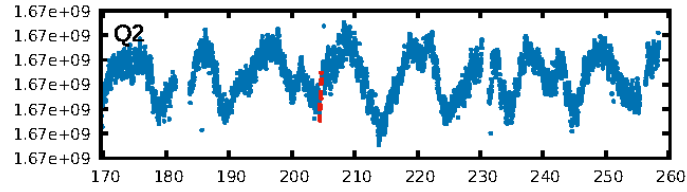
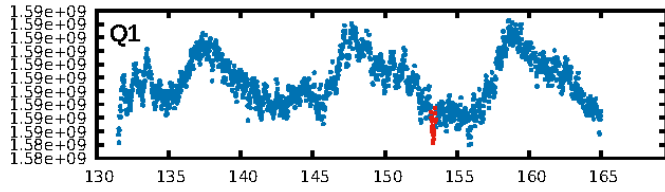
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [187.33 σ]
LongPeriod-sig: 100.0% [34.33 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 5.87e-20
RollingBand-fgt: 1.00 [10/10]
GhostDiagnostic-chr: 2.79
Centroid-sig: 61.7%
Centroid-so: 0.201 arcsec [0.35 σ]
OotOffset-rm: 3.348 arcsec [4.00 σ]
KicOffset-rm: 2.775 arcsec [3.36 σ]
OotOffset-st: 2/4/2/2 [10]
KicOffset-st: 2/4/2/2 [10]
DiffImageQuality-fgm: 0.50 [5/10]
DiffImageOverlap-fno: 0.00 [0/14]

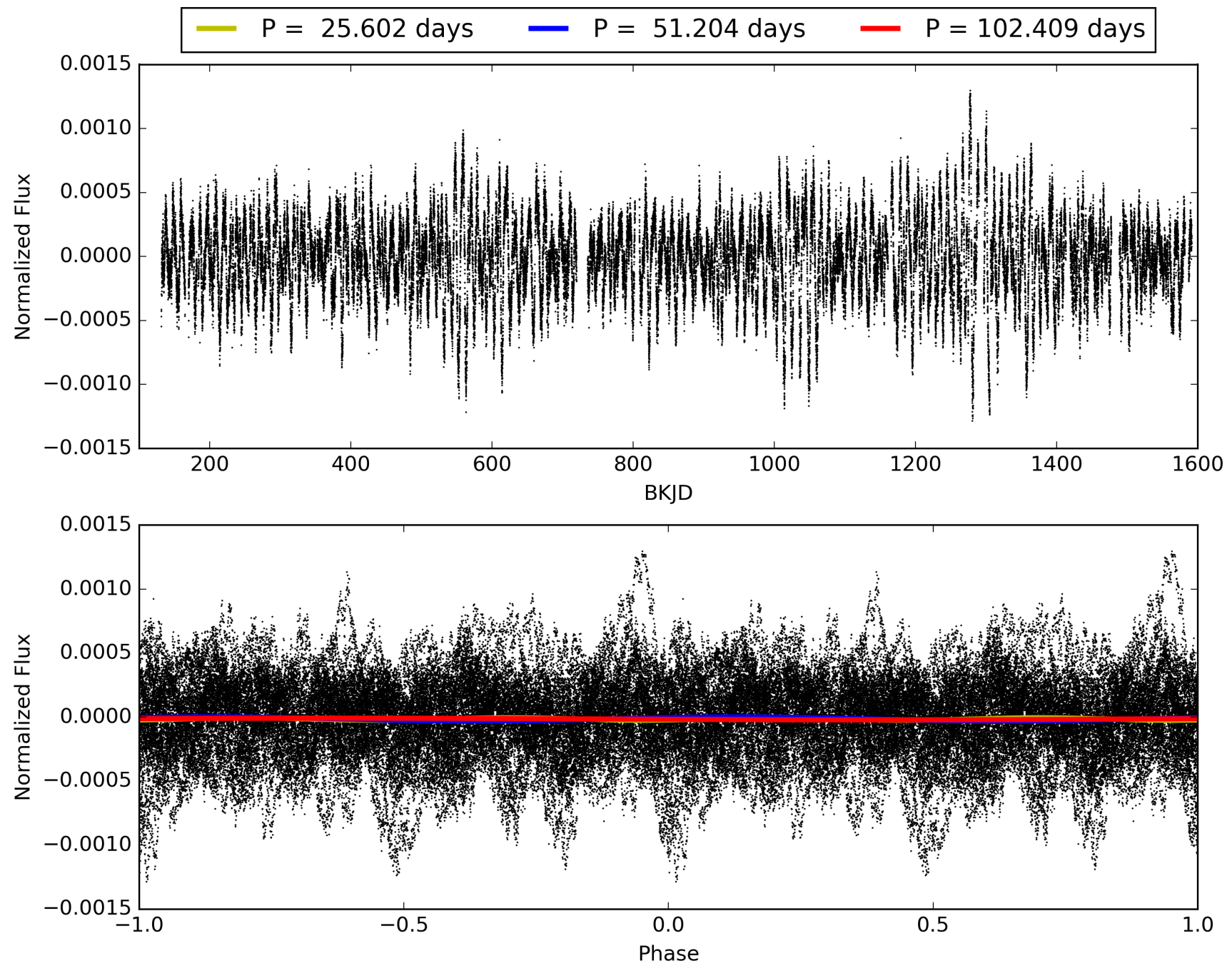
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 01:49:50 Z

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

TCE 007176268-02, PDC Light Curves

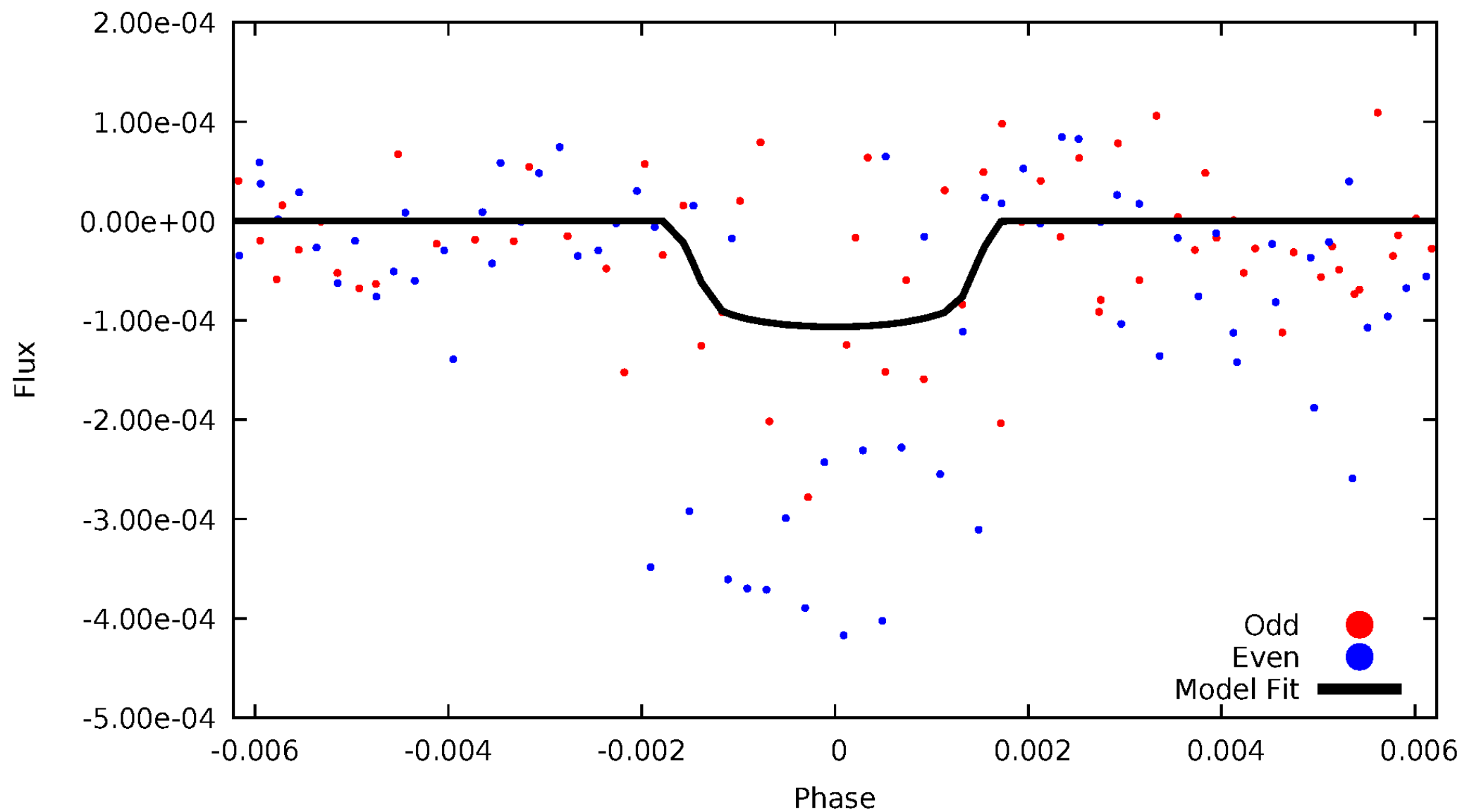


TCE 007176268-02



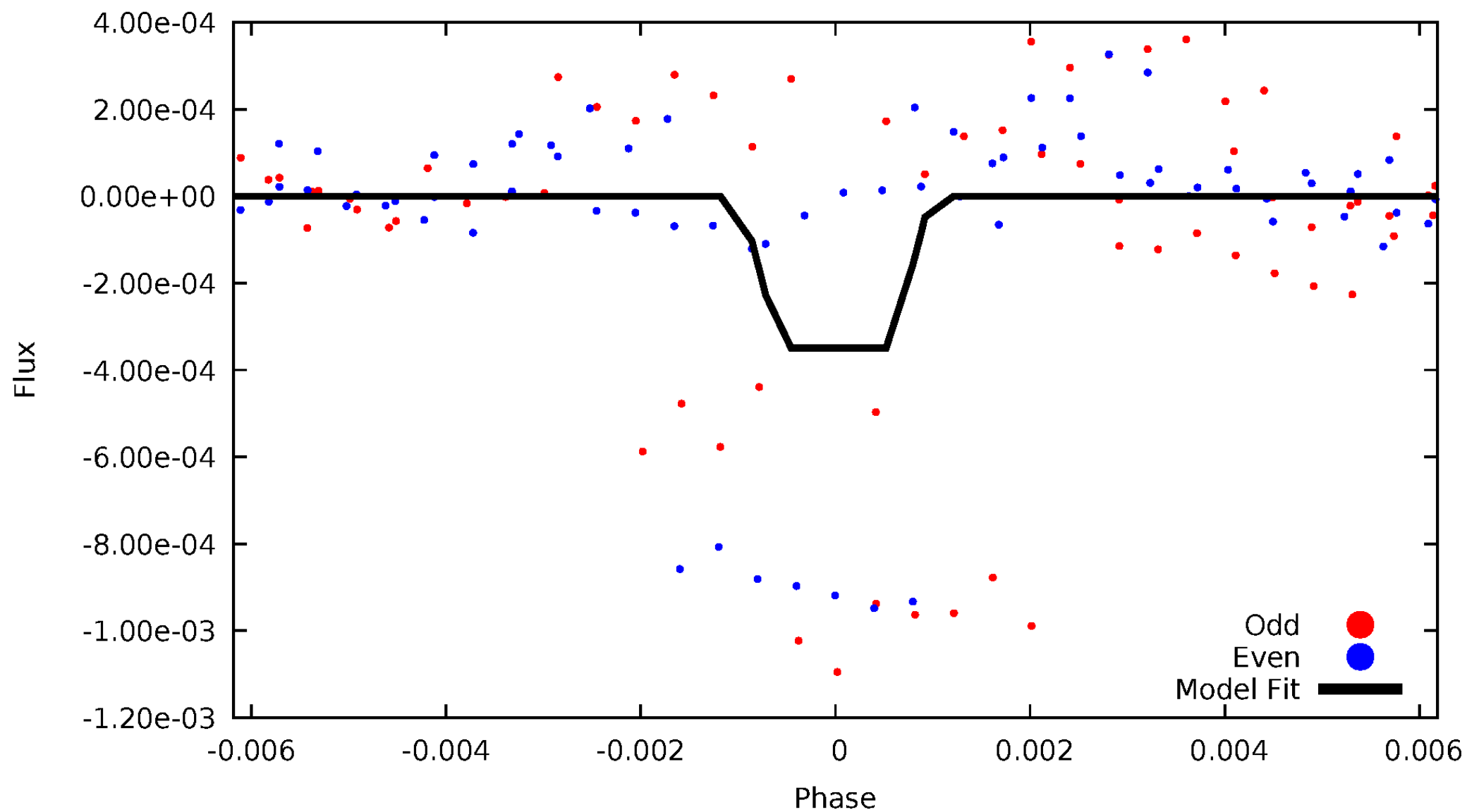
DV Odd/Even

TCE 007176268-02



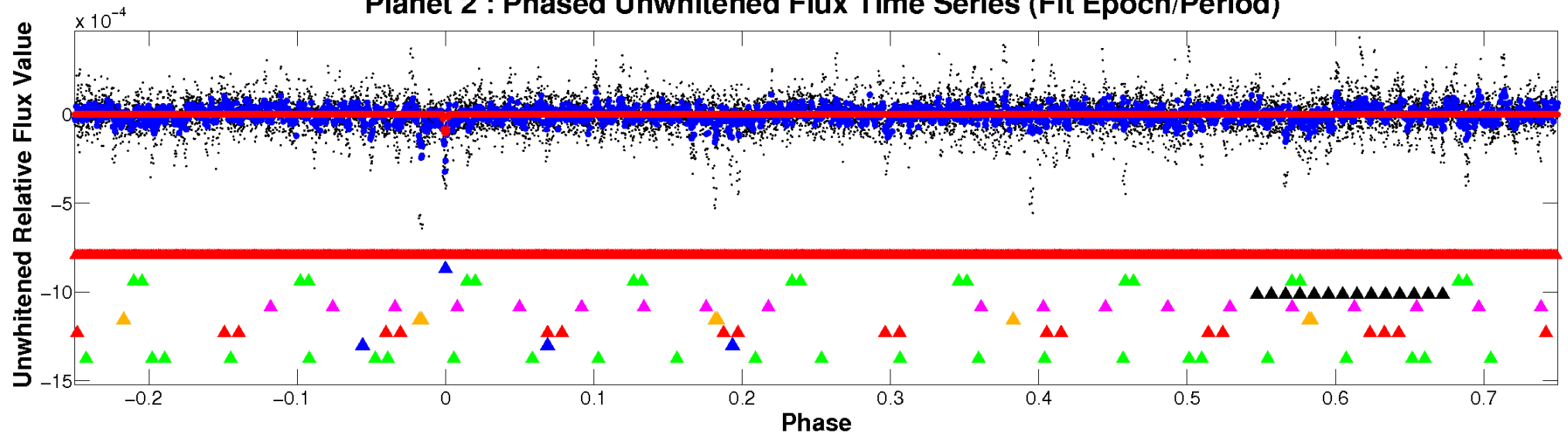
ALT Odd/Even

TCE 007176268-02

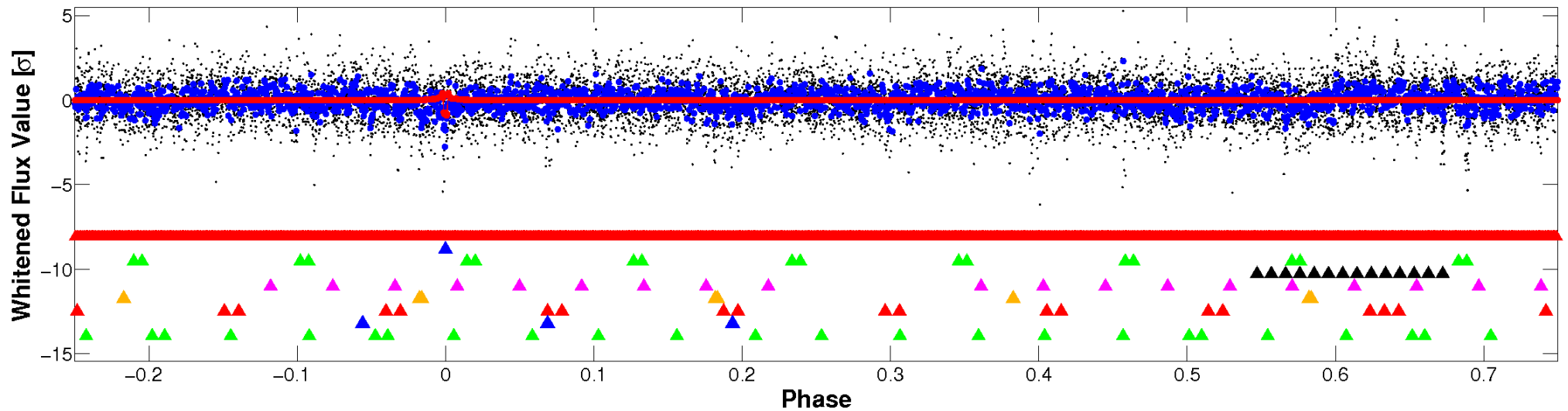


Non-Whitened Vs. Whitened Light Curve

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

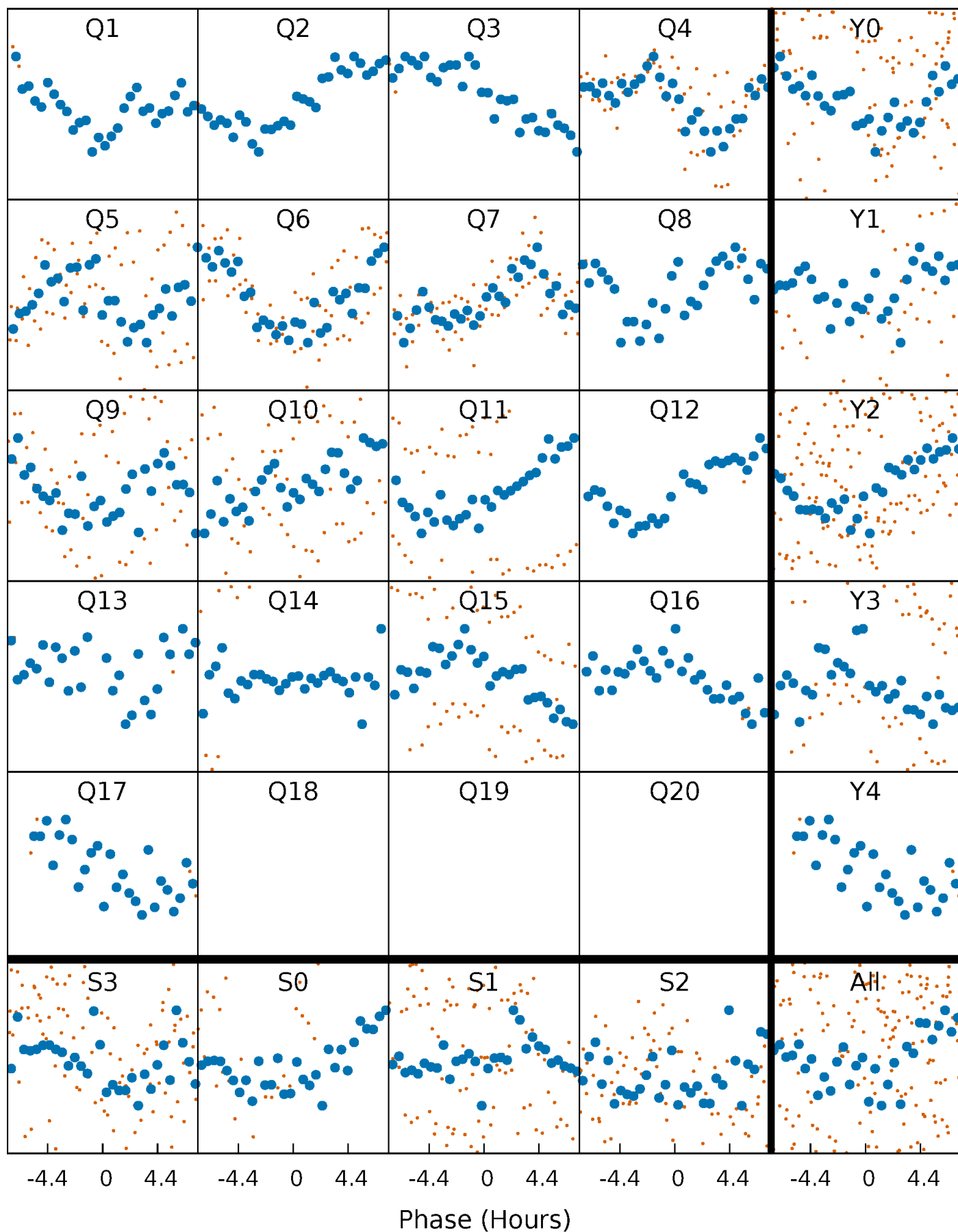


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



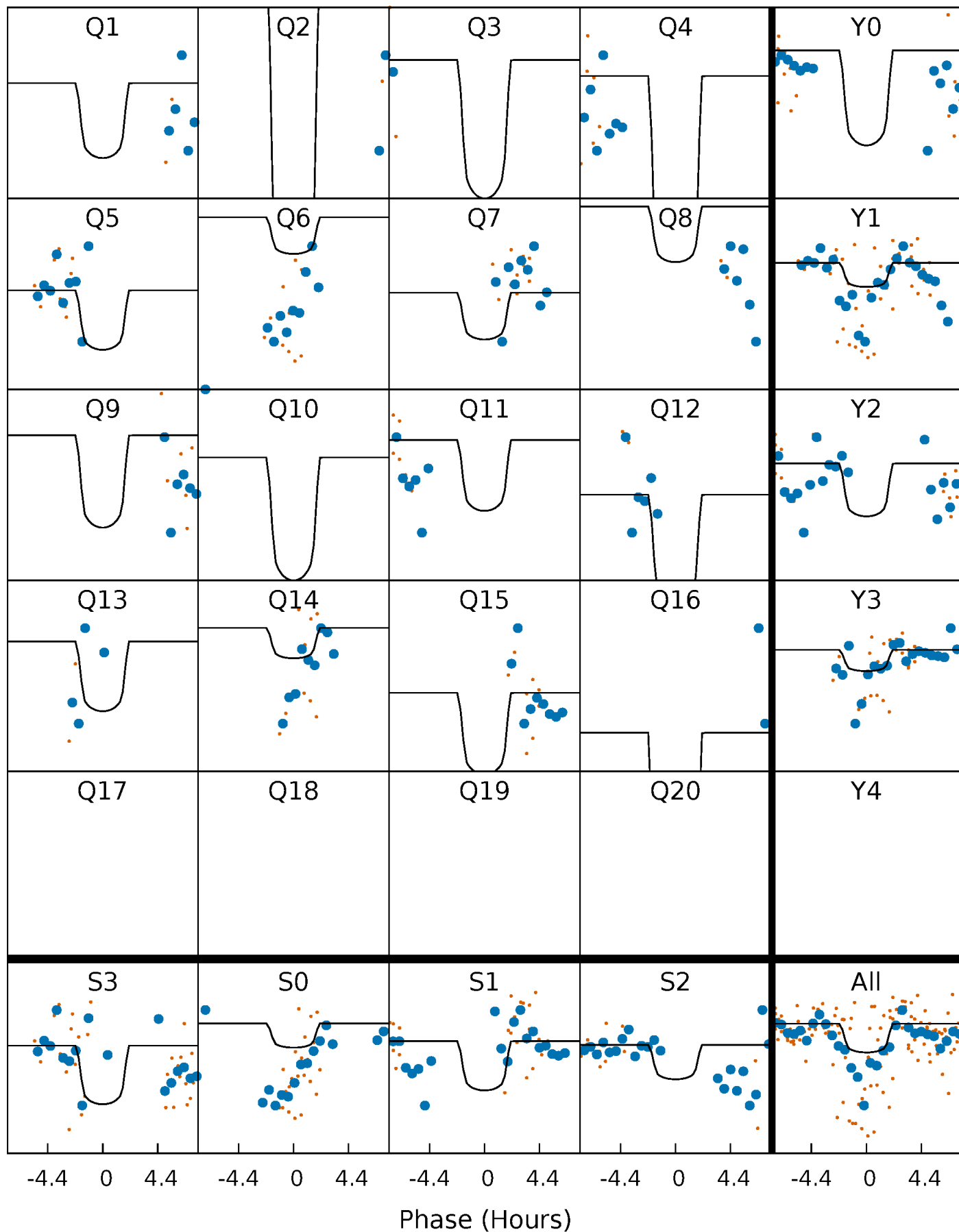
PDC Quarter-Phased Transit Curves

TCE 007176268-02 P= 51.204386 Days $T_0=153.350436$ (BKJD)



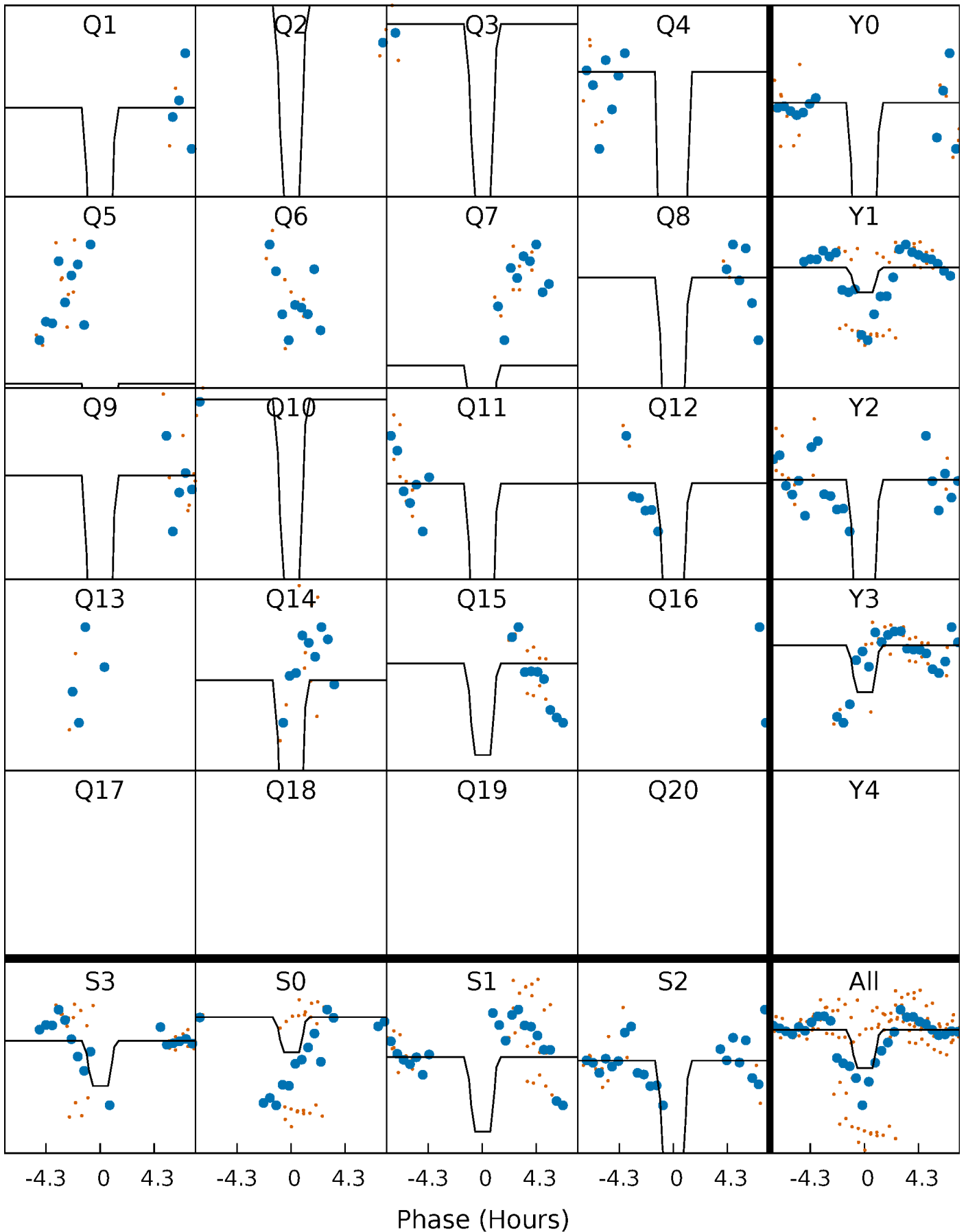
DV Quarter-Phased Transit Curves

TCE 007176268-02 $P = 51.204386$ Days $T_0 = 153.350436$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

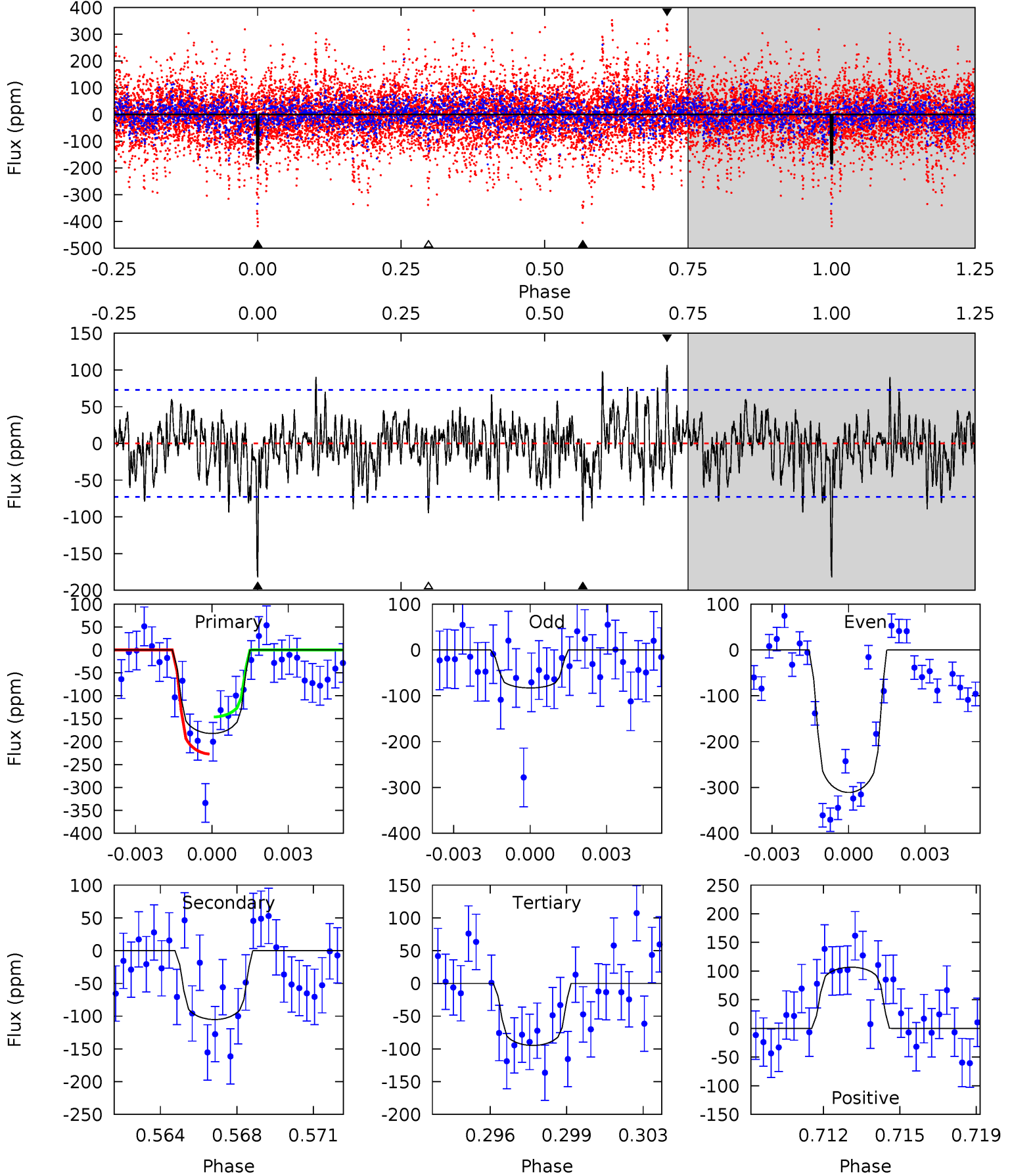
TCE 007176268-02 P= 51.204808 Days $T_0=153.331338$ (BKJD)



DV Model-Shift Uniqueness Test

007176268-02, P = 51.204386 Days, E = 102.146050 Days

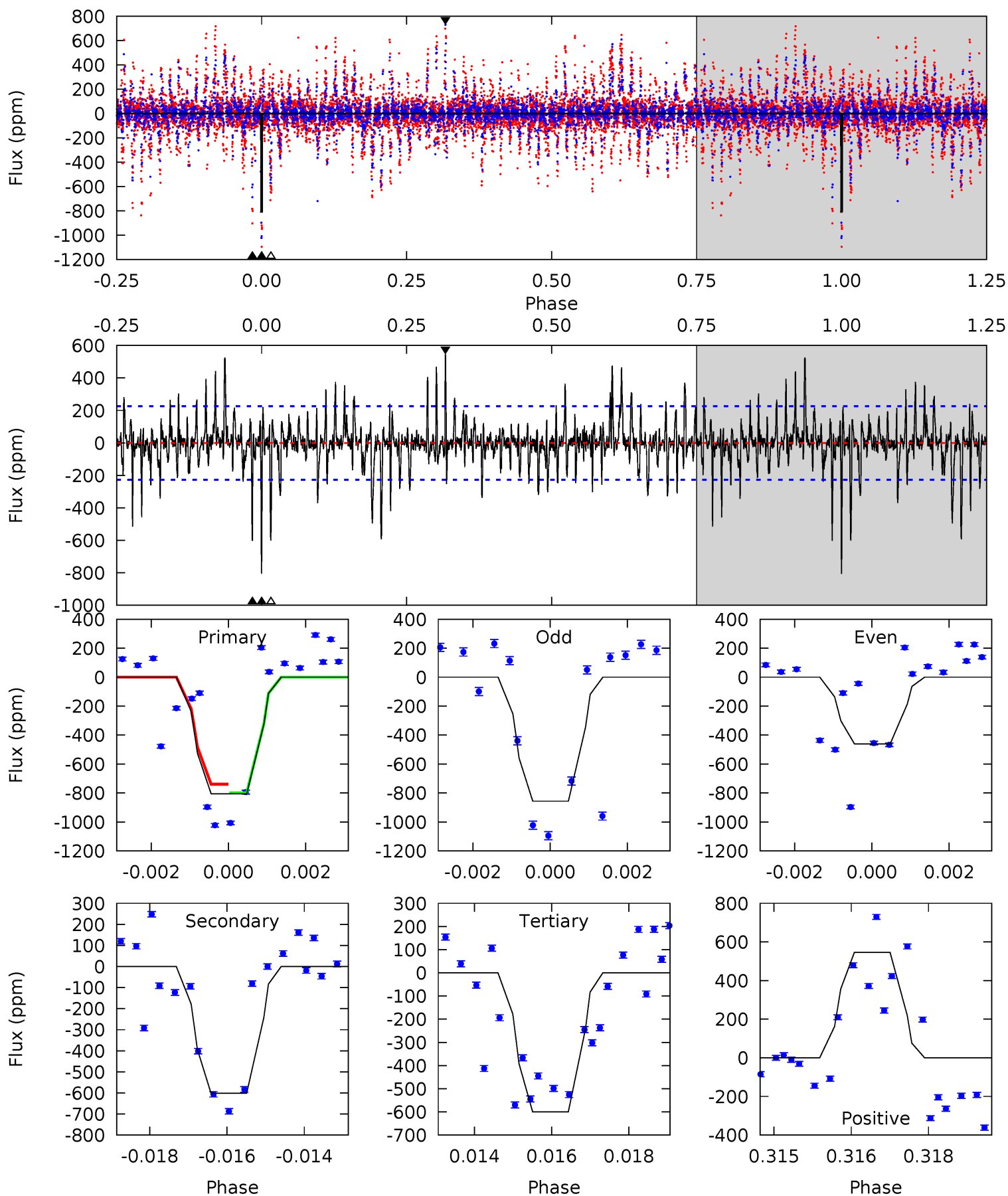
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	7.55	6.80	7.67	5.23	2.93	2.06	6.29	5.42	0.75	-0.12	7.75	5.08	0.37	2.83



Alt Model-Shift Uniqueness Test

007176268-02, P = 51.204808 Days, E = 102.126530 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.0	14.2	14.2	12.9	5.35	3.13	2.46	4.84	6.10	0.04	1.30	4.41	1.27	0.40	0.66



Stellar Parameters For KIC 007176268

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6698^{+151}_{-184}	$3.945^{+0.240}_{-0.129}$	$-0.140^{+0.300}_{-0.250}$	$2.138^{+0.501}_{-0.613}$	$1.469^{+0.186}_{-0.256}$	$0.212^{+0.314}_{-0.082}$
	+2%/-3%	+6%/-3%	+214%/-179%	+23%/-29%	+13%/-17%	+148%/-39%
Source	PHO1	FLK73	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 007176268-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-105 ± 14	$2.74^{+1.96}_{-1.64}$	1083^{+66}_{-88}	6124^{+4418}_{-1305}	712^{+3595}_{-466}
Alt.	-602 ± 42	$4.22^{+2.40}_{-1.98}$	1076^{+70}_{-84}	7776^{+4023}_{-1639}	1759^{+4304}_{-1043}

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 $A_{\text{obs}} \gg 1.0$

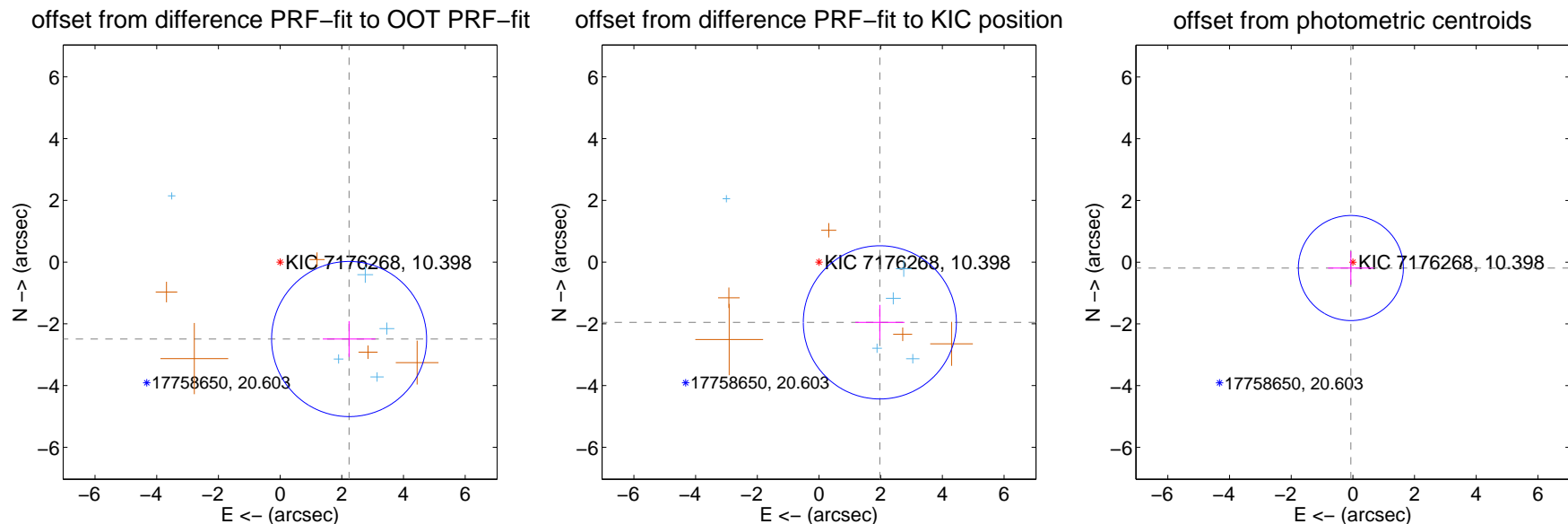
DV Centroid Data

Supplemental centroid analysis for 007176268-02. **Kepler magnitude: 10.40.** Transit SNR 4.66

There are 5 quarters with good PRF difference image offsets

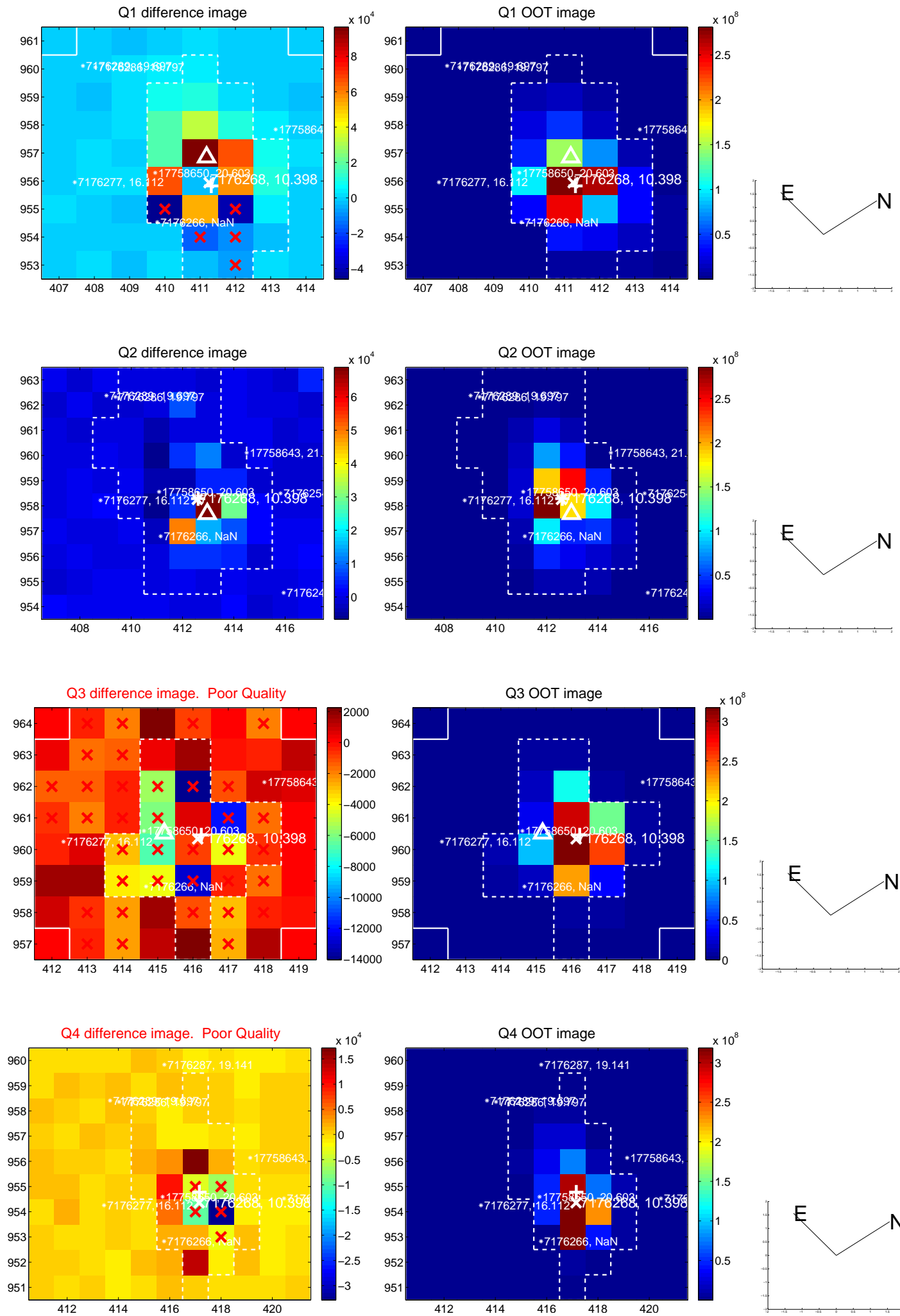
The direct PRF centroid is offset from the target star catalog position by about 1.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.348 ± 0.837	4.00	-2.236 ± 0.854	-2.491 ± 0.578
PRF-fit source offset from KIC position	2.775 ± 0.827	3.36	-1.973 ± 0.796	-1.952 ± 0.566
photometric centroid source offset	0.20 ± 0.57	0.35	0.06 ± 0.74	-0.19 ± 0.54

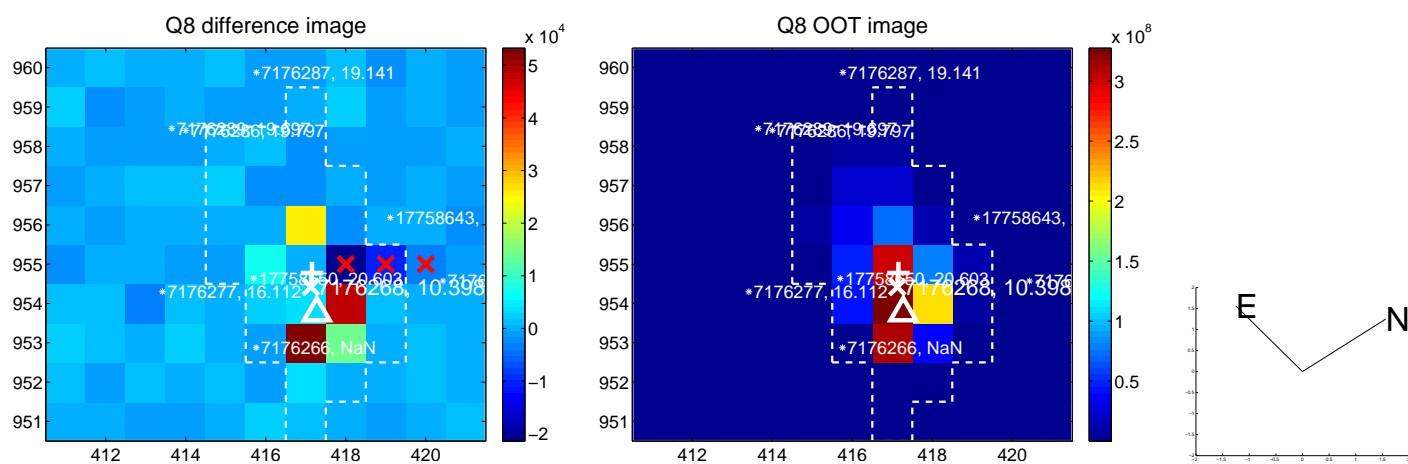
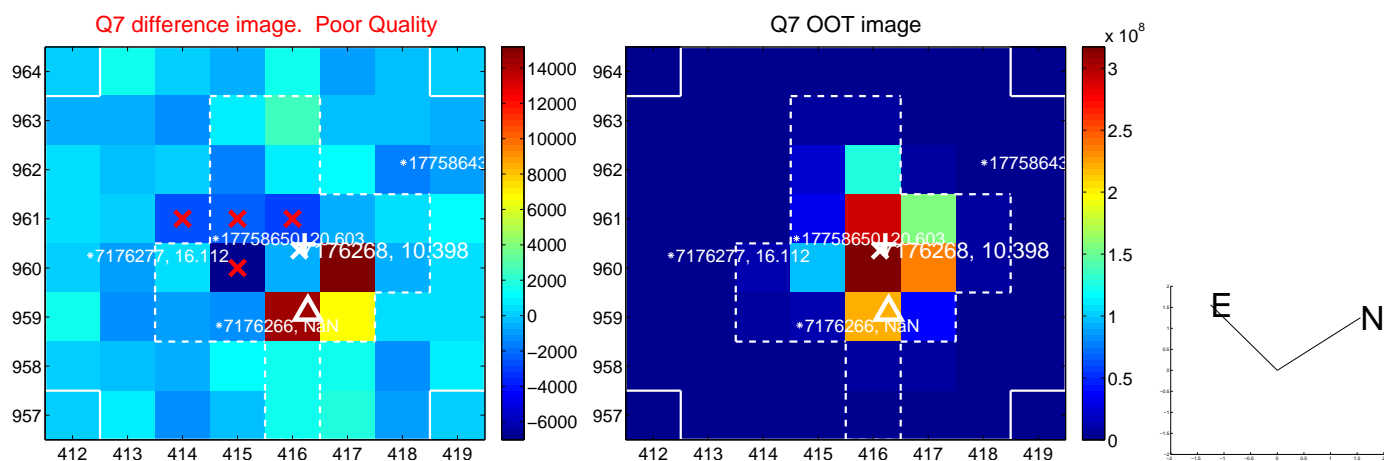
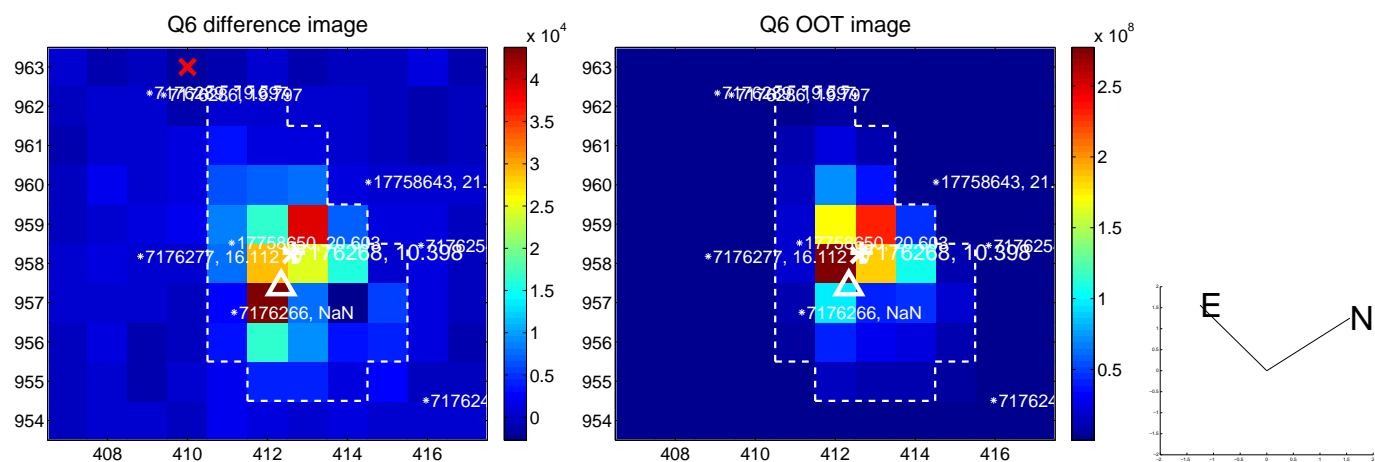
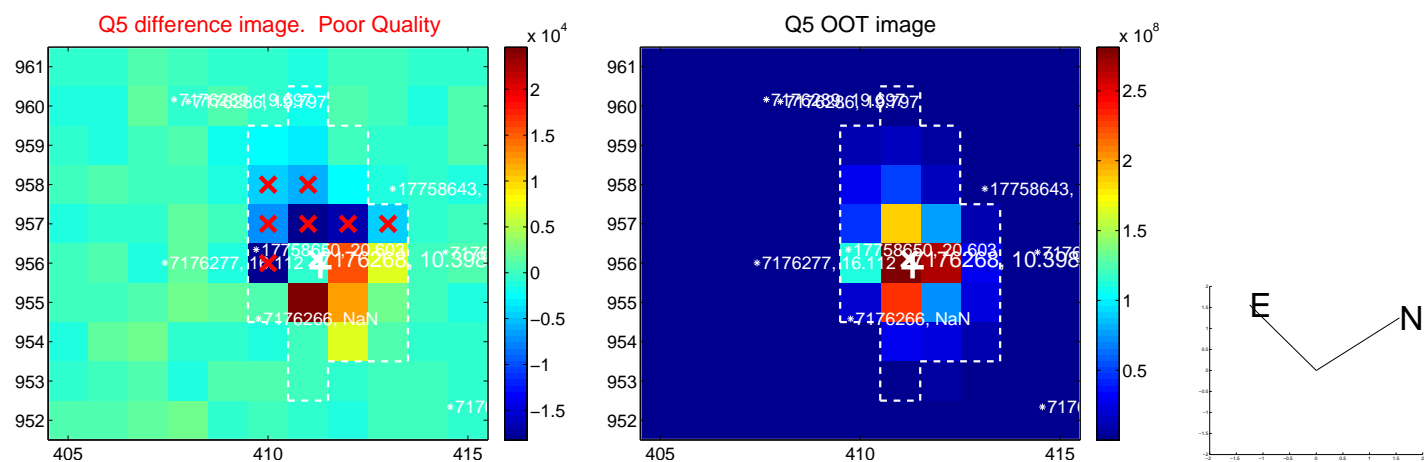


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

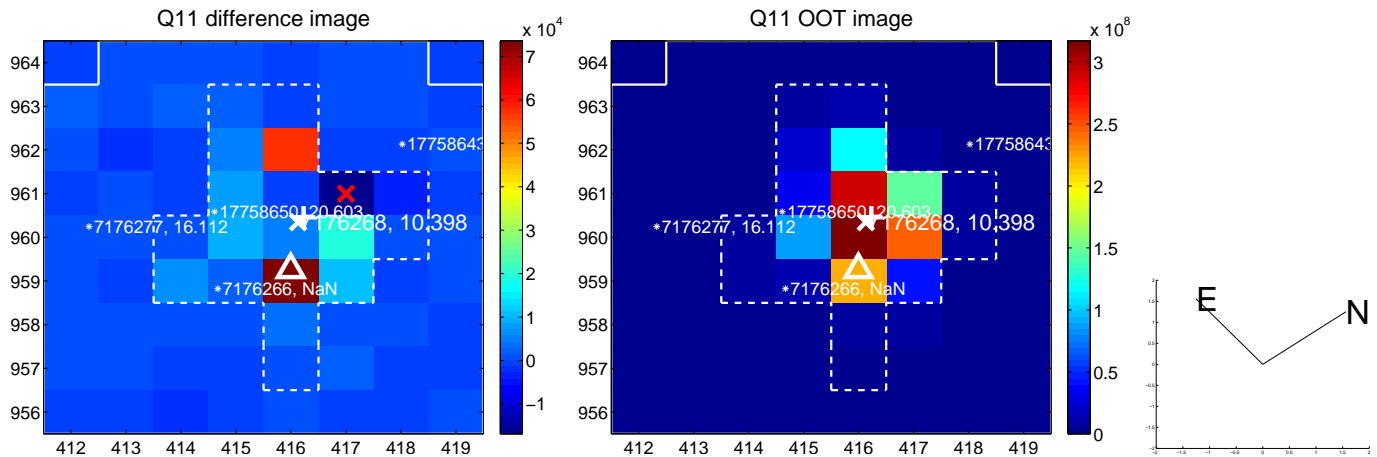
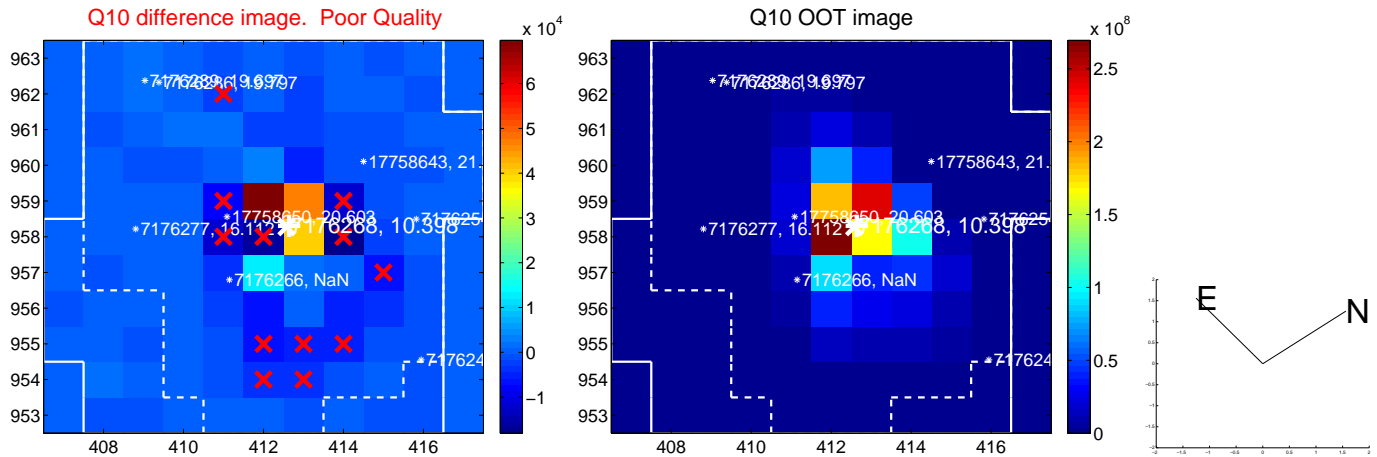
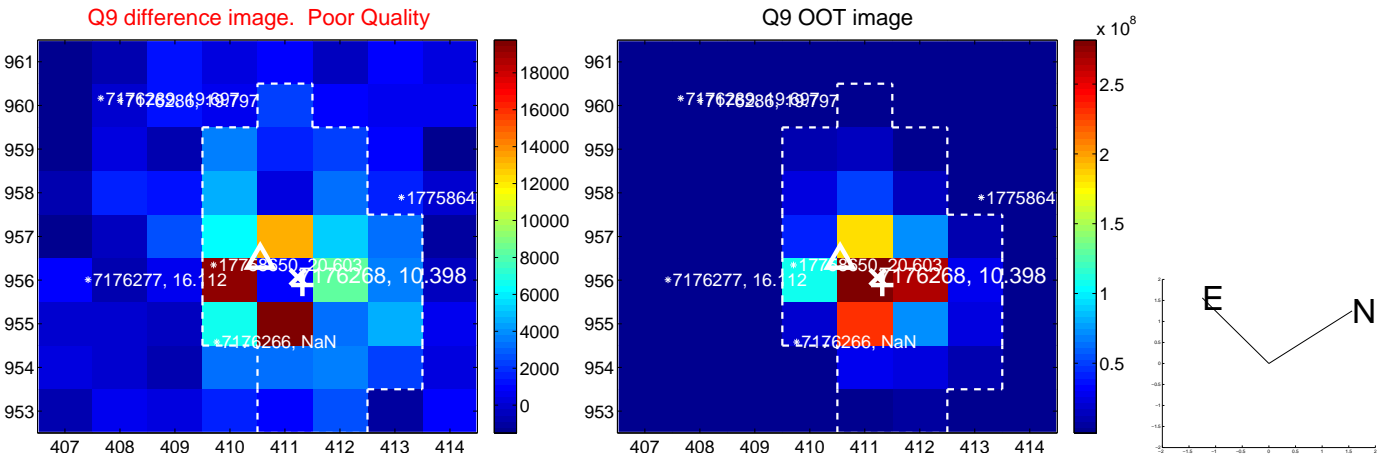
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



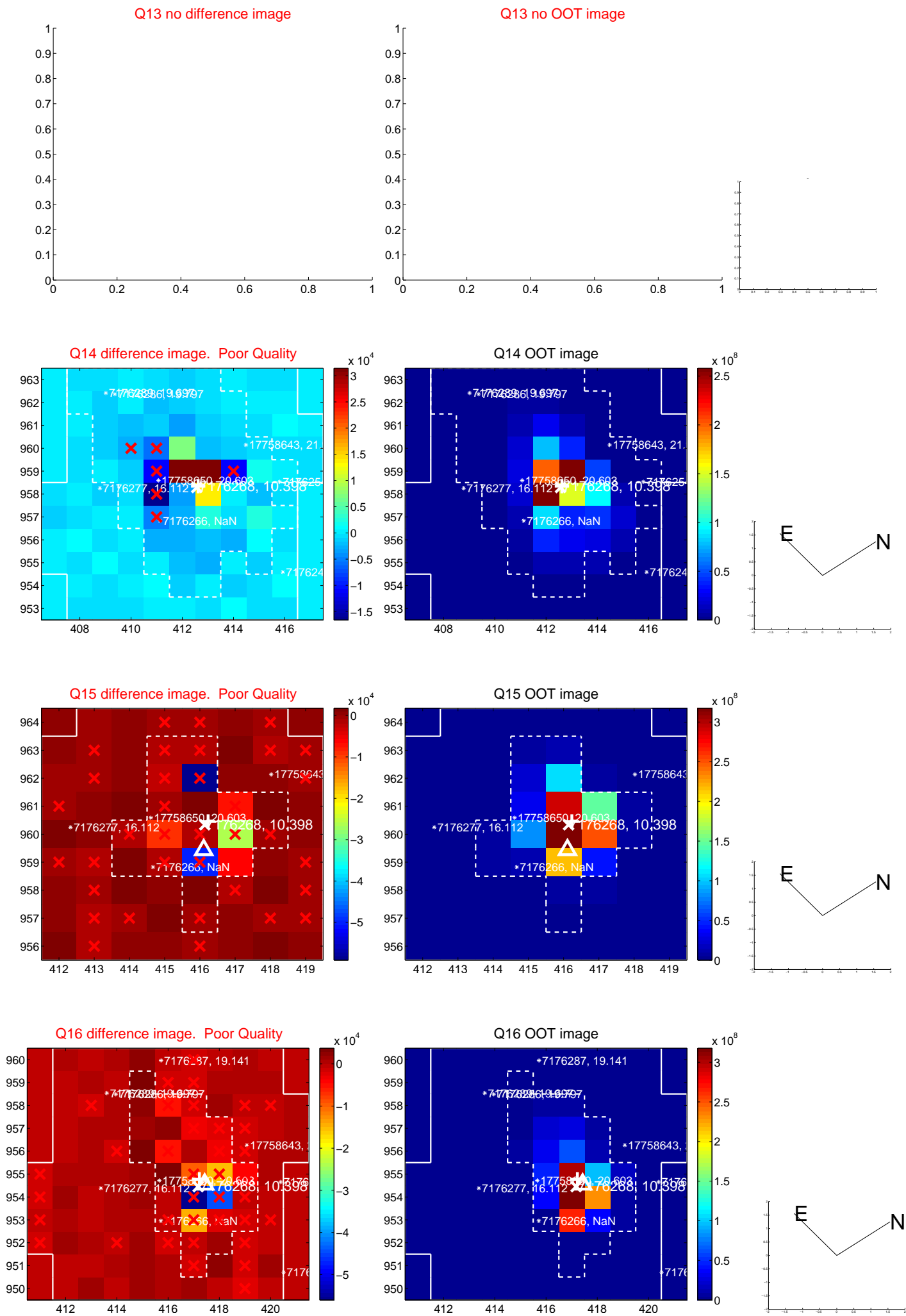
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



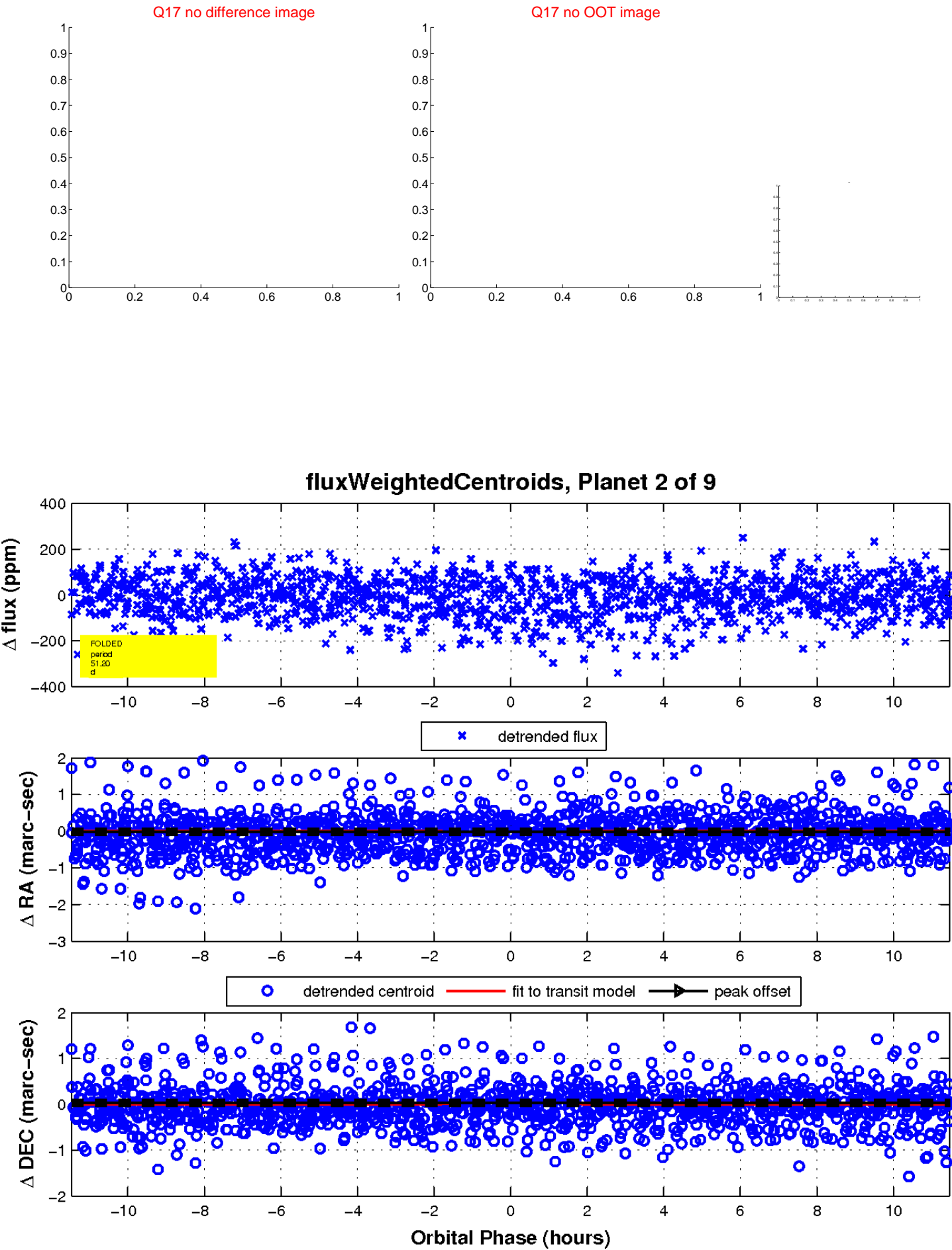
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

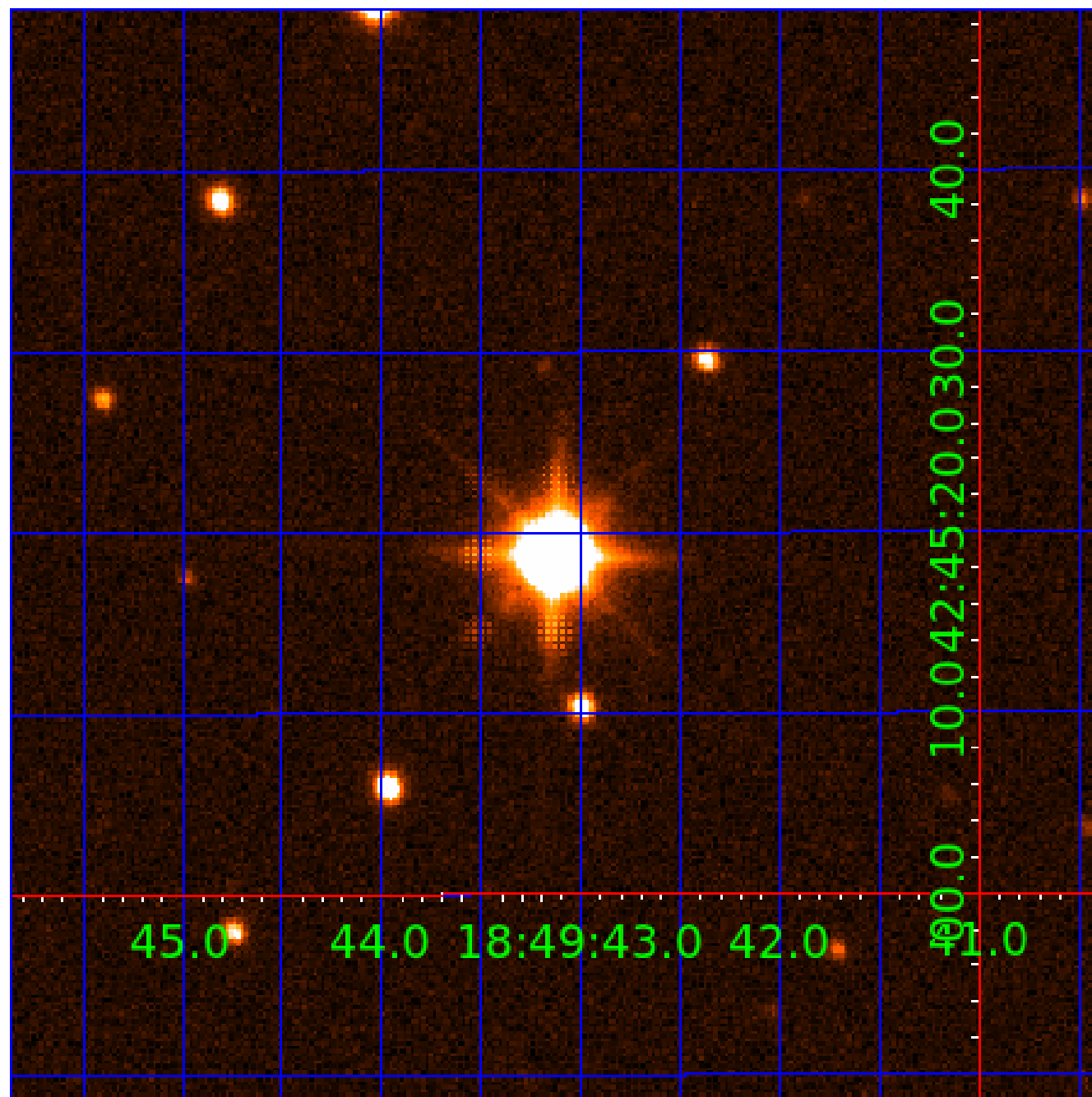


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007176268

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})
007176268-01	OBS	No	0.813753	132.060153	12.8	5.202	10.2	10.8	2.14	6698	0.84	21912.38
007176268-02	OBS	No	51.204386	153.350435	106.5	3.823	12.4	4.7	2.14	6698	2.52	87.55
007176268-03	OBS	No	79.682941	165.313349	234.5	3.218	11.6	9.4	2.14	6698	3.77	48.55
007176268-04	OBS	No	102.901731	181.369342	163.1	3.825	12.8	8.5	2.14	6698	3.13	34.52
007176268-05	OBS	No	77.880572	171.840913	124.3	8.625	11.2	5.9	2.14	6698	2.76	50.05
007176268-06	OBS	No	174.110248	213.867569	311.3	7.376	11.3	9.7	2.14	6698	7.27	17.12
007176268-07	OBS	No	79.596048	135.056846	103.3	5.051	9.8	4.1	2.14	6698	2.48	48.62
007176268-08	OBS	No	518.428552	304.103724	317.1	7.383	8.8	9.1	2.14	6698	4.44	4.00
007176268-09	OBS	No	58.906583	179.024332	178.2	3.792	7.3	7.4	2.14	6698	4.51	72.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007176268-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007176268-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007176268-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007176268-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007176268-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_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.

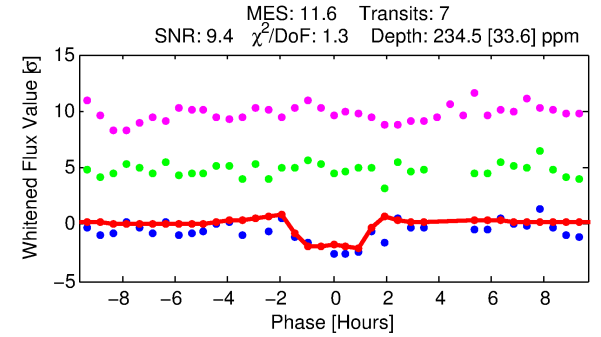
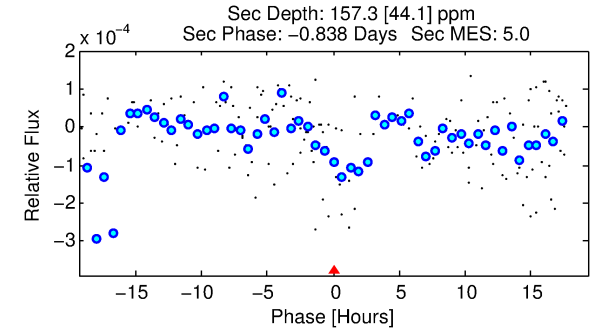
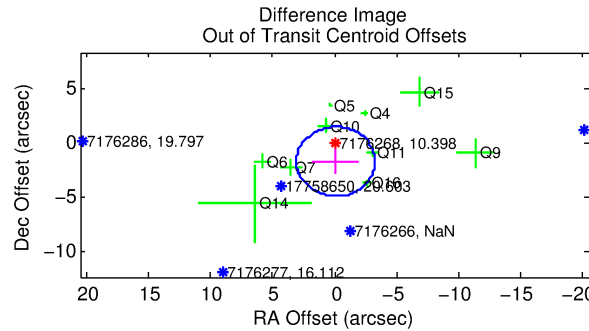
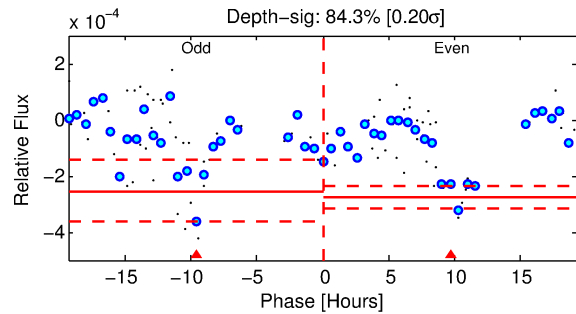
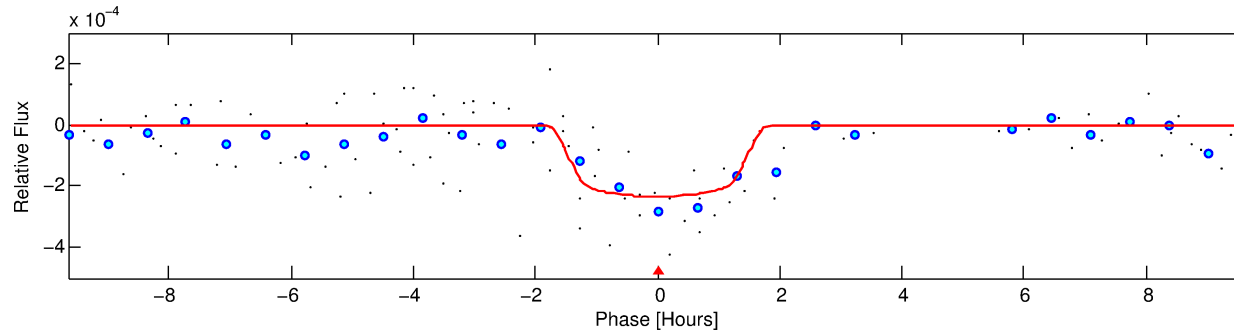
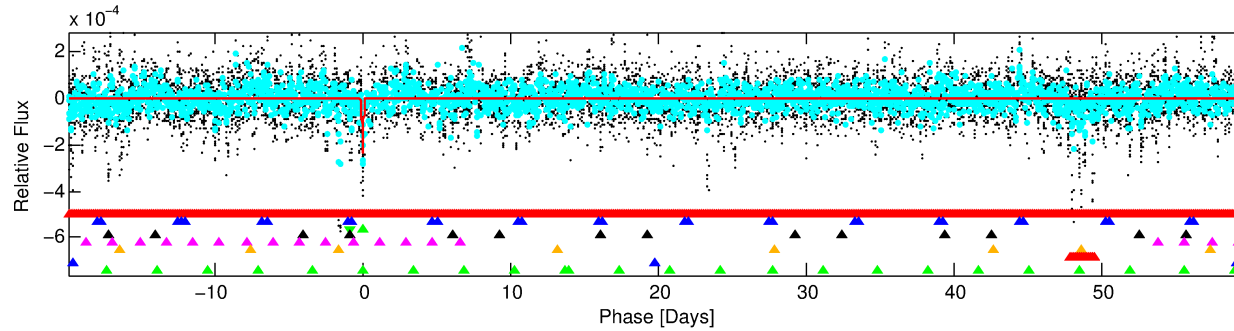
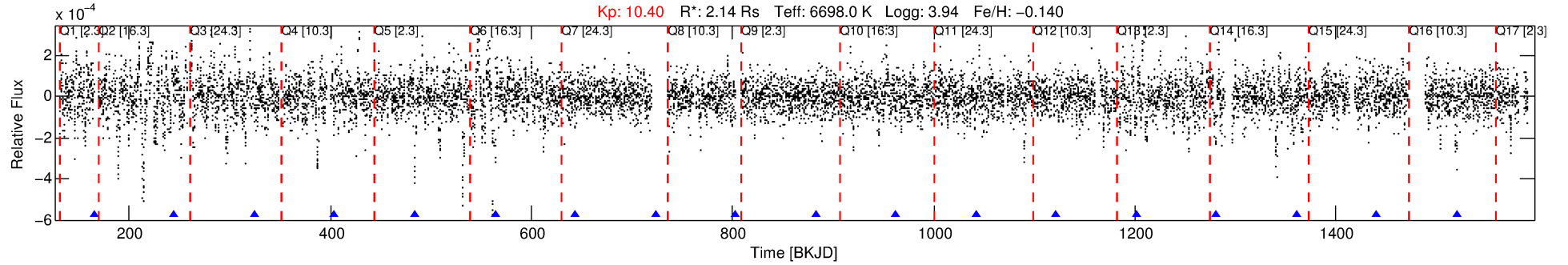
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007176268-03

No Significant Match Found

DV One-Page Summary

KIC: 7176268 Candidate: 3 of 9 Period: 79.683 d



DV Fit Results:

Period = 79.68294 [0.00069] d
Epoch = 165.3133 [0.0072] BKJD
Rp/R* = 0.0162 [0.0066]
b/R* = 94.70 [221.13]
b = 0.88 [0.58]
Seff = 48.55 [20.84]
Teq = 673 [72] K
Rp = 3.77 [1.89] Re
a = 0.4120 [0.1094] AU
Ag = 1031.62 [991.14] [1.04 σ]
Teffp = 5898 [1288] K [4.05 σ]

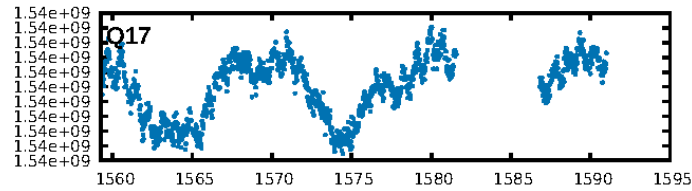
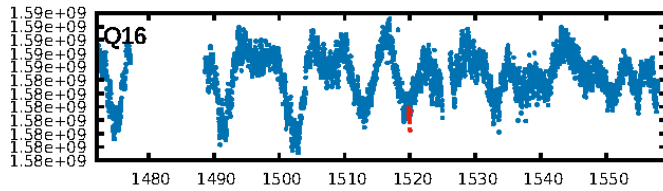
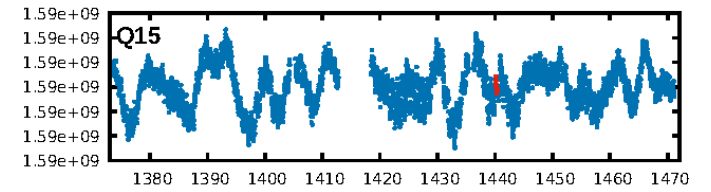
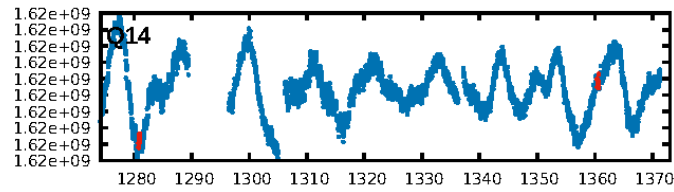
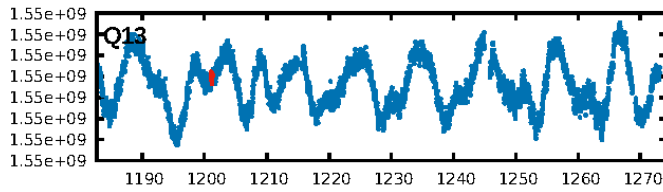
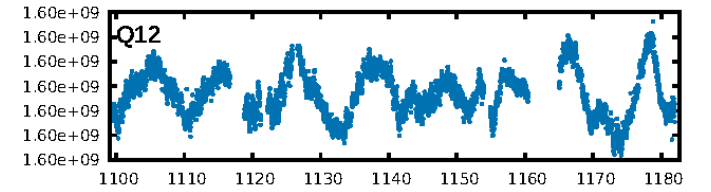
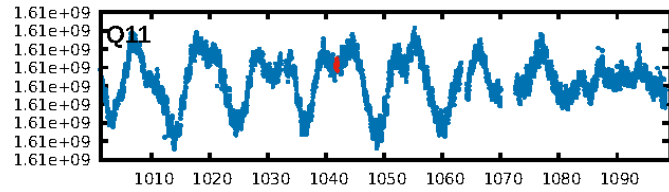
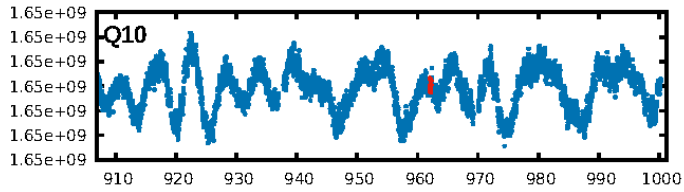
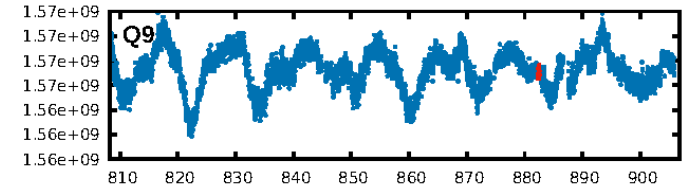
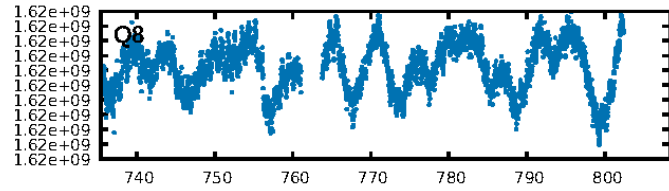
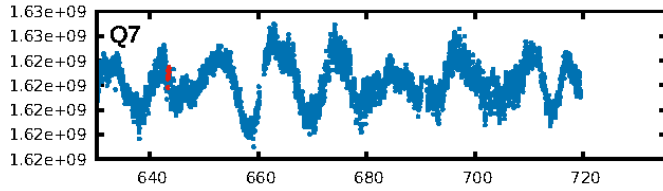
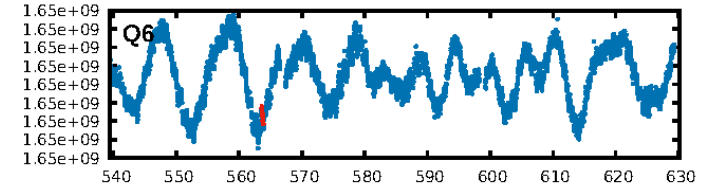
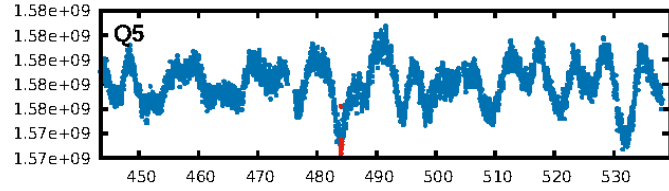
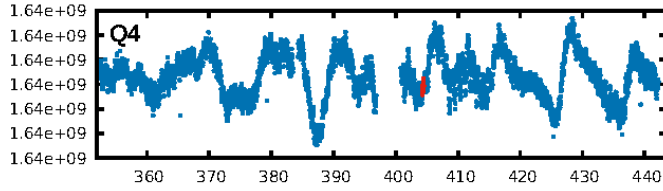
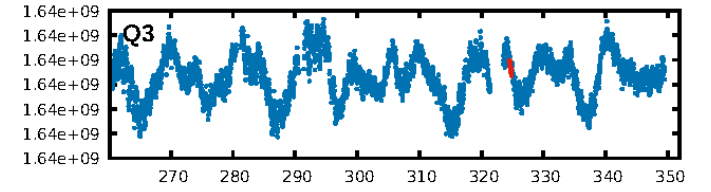
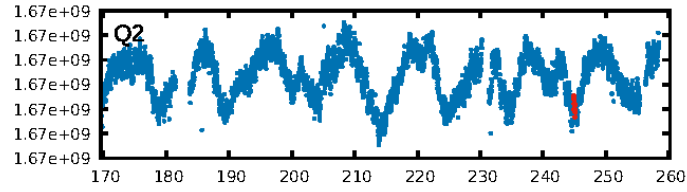
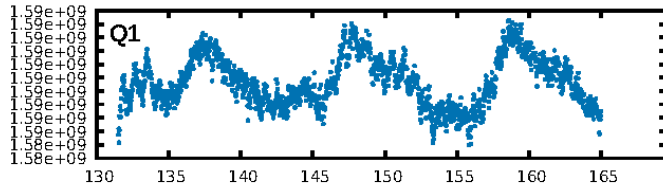
DV Diagnostic Results:

ShortPeriod-sig: 27.2% [0.35 σ]
LongPeriod-sig: 100.0% [111.48 σ]
ModelChiSquare2-sig: 0.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.83e-20
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: 3.299
Centroid-sig: 0.0%
Centroid-so: 1.037 arcsec [2.69 σ]
OotOffset-rm: 1.724 arcsec [1.63 σ]
KicOffset-rm: 2.779 arcsec [2.32 σ]
OotOffset-st: 3/3/2/2 [10]
KicOffset-st: 3/3/2/2 [10]
DiffImageQuality-fgm: 0.30 [3/10]
DiffImageOverlap-fno: 0.00 [0/12]

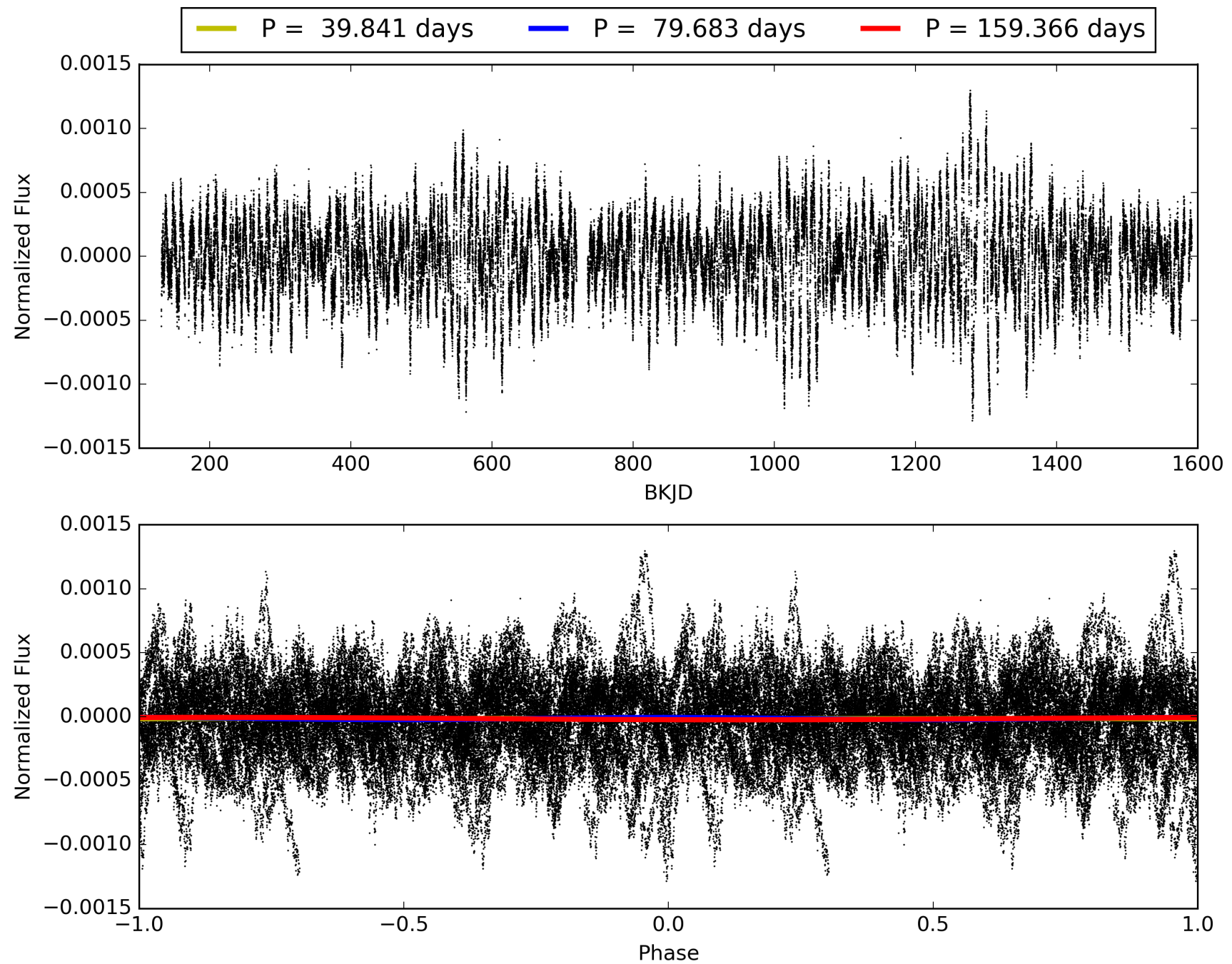
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 01:49:54 Z

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

TCE 007176268-03, PDC Light Curves

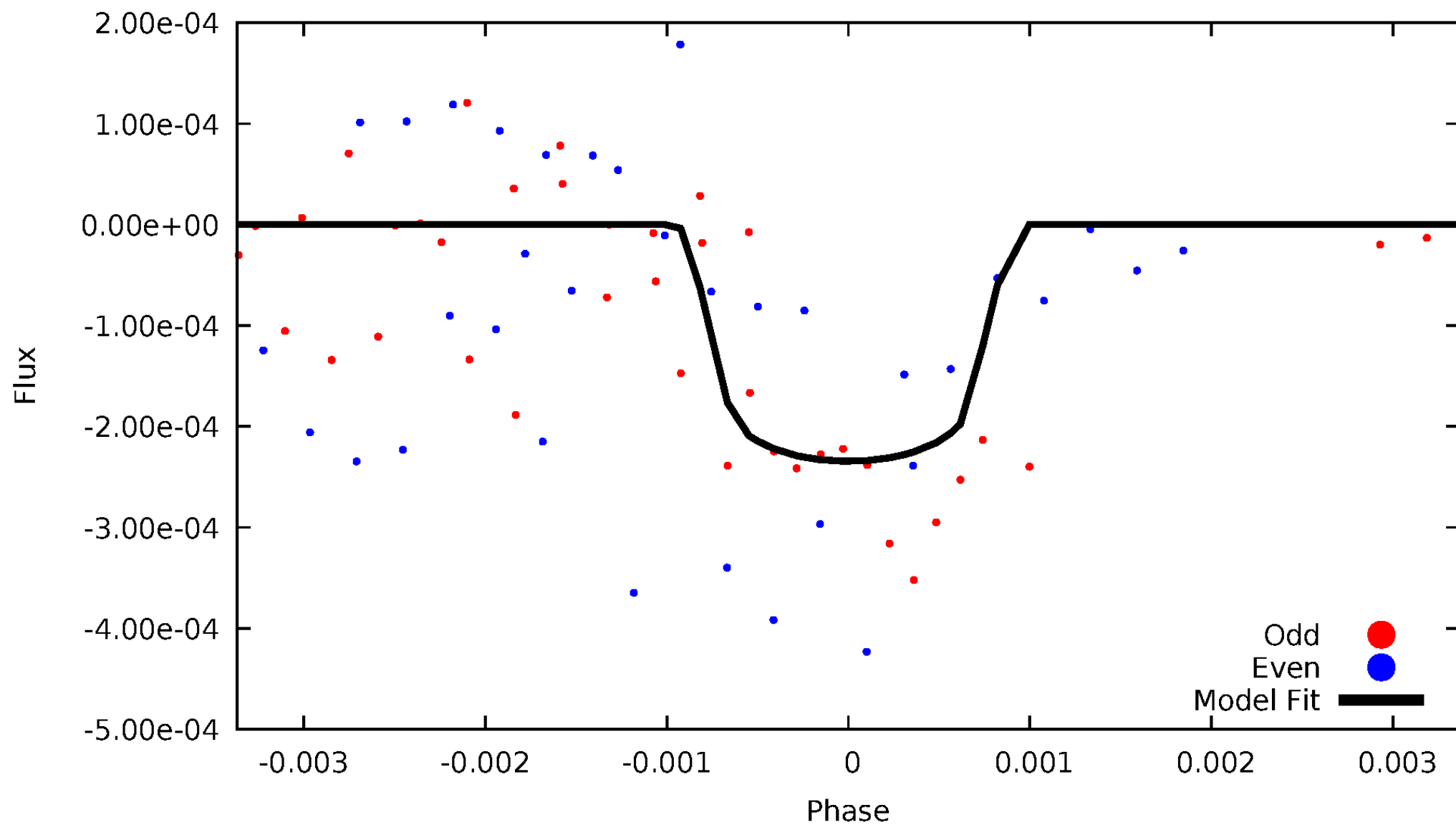


TCE 007176268-03



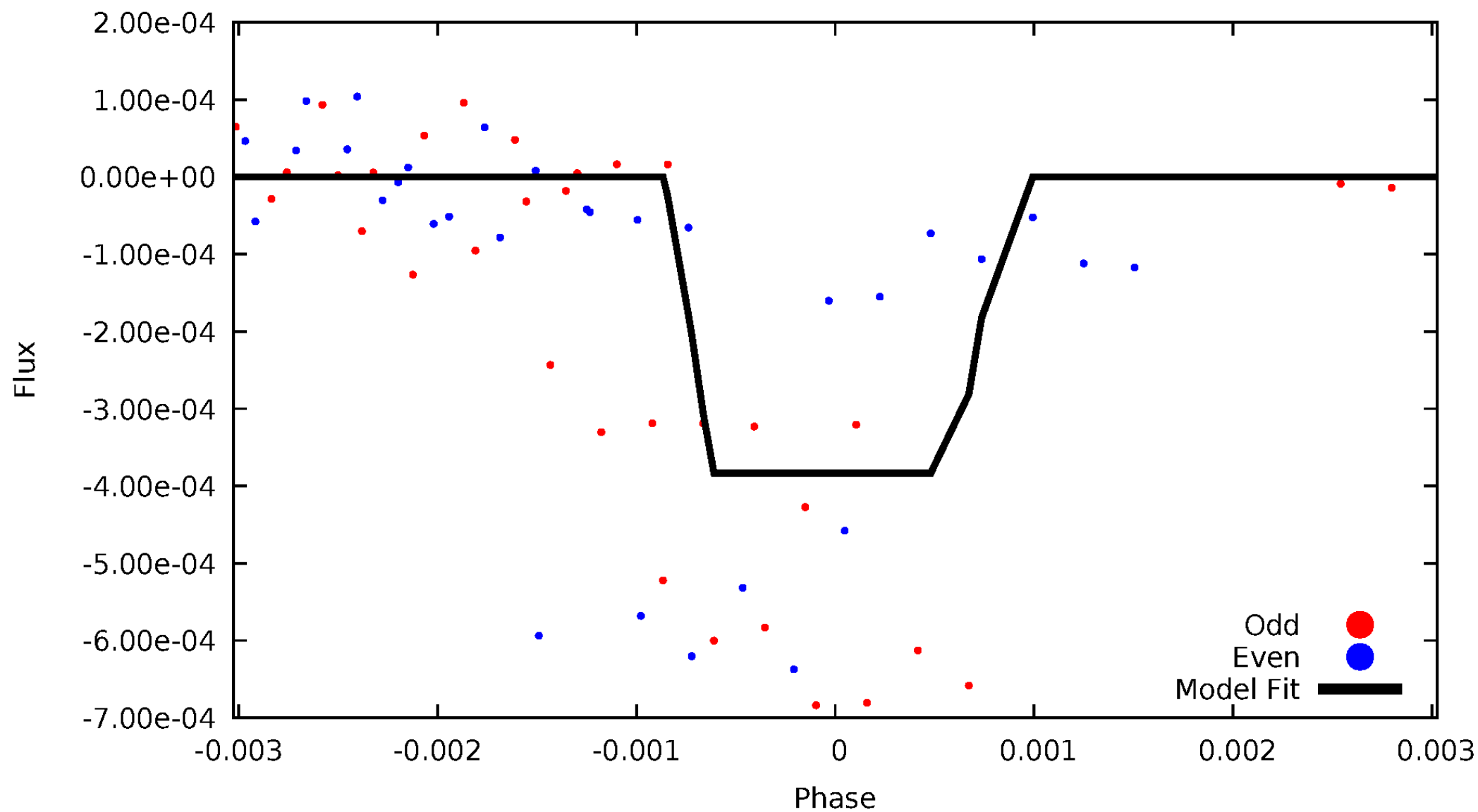
DV Odd/Even

TCE 007176268-03



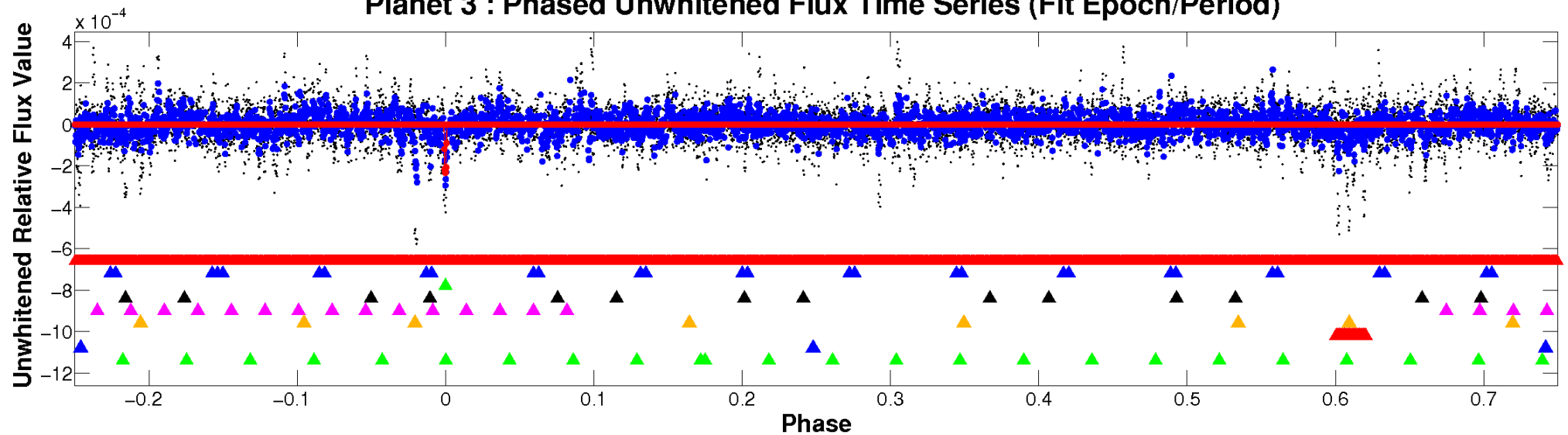
ALT Odd/Even

TCE 007176268-03

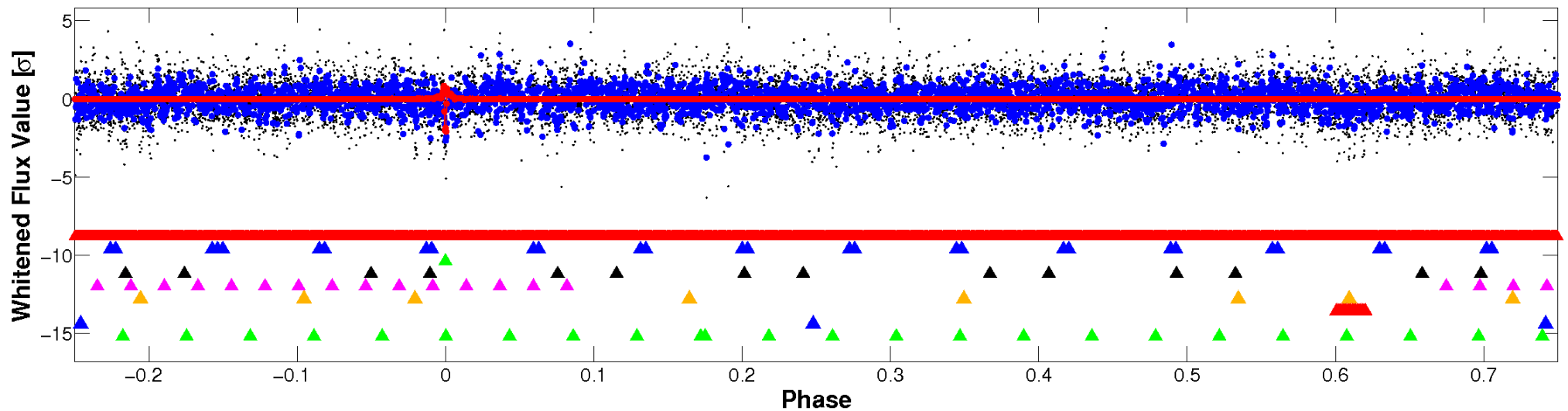


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

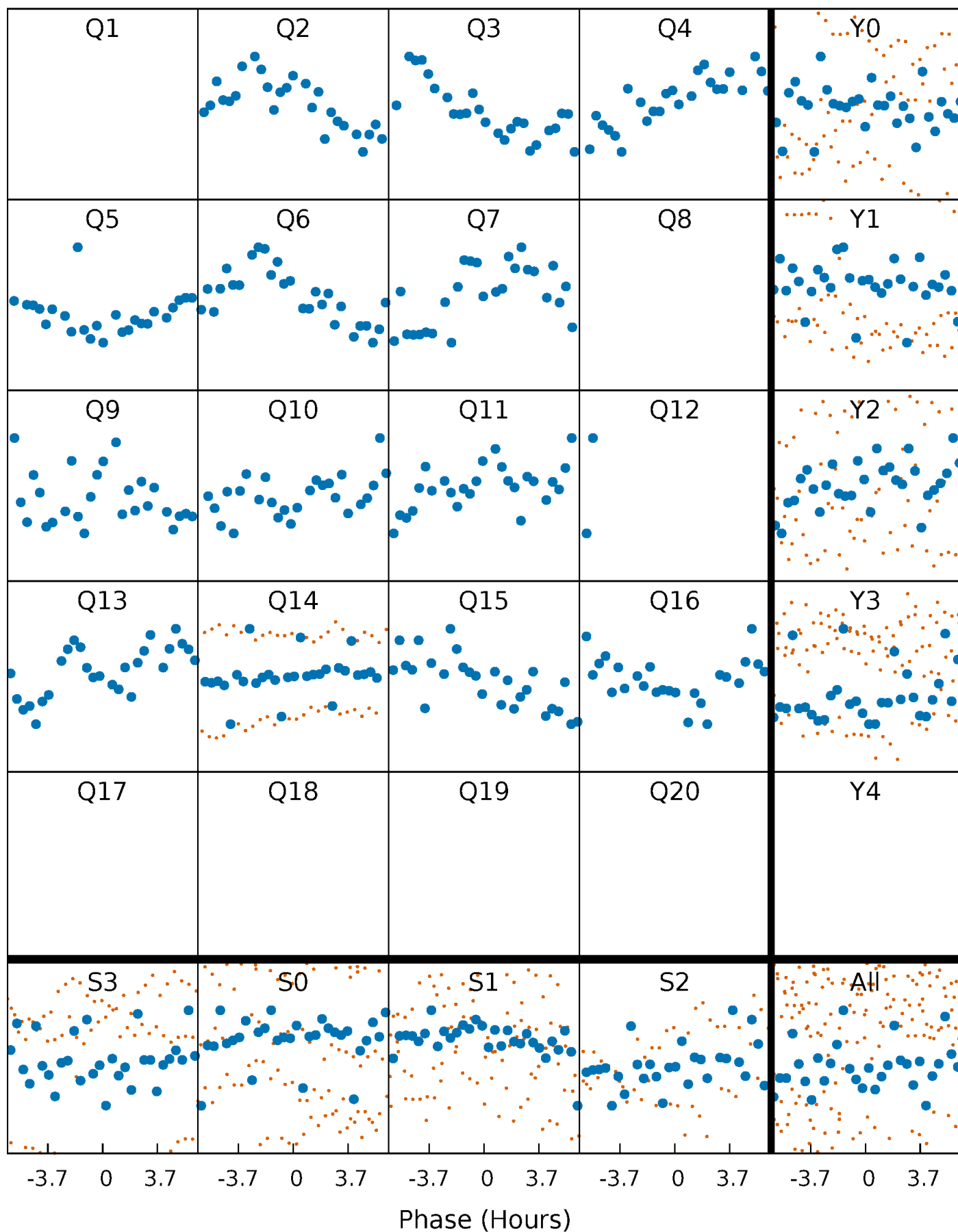


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



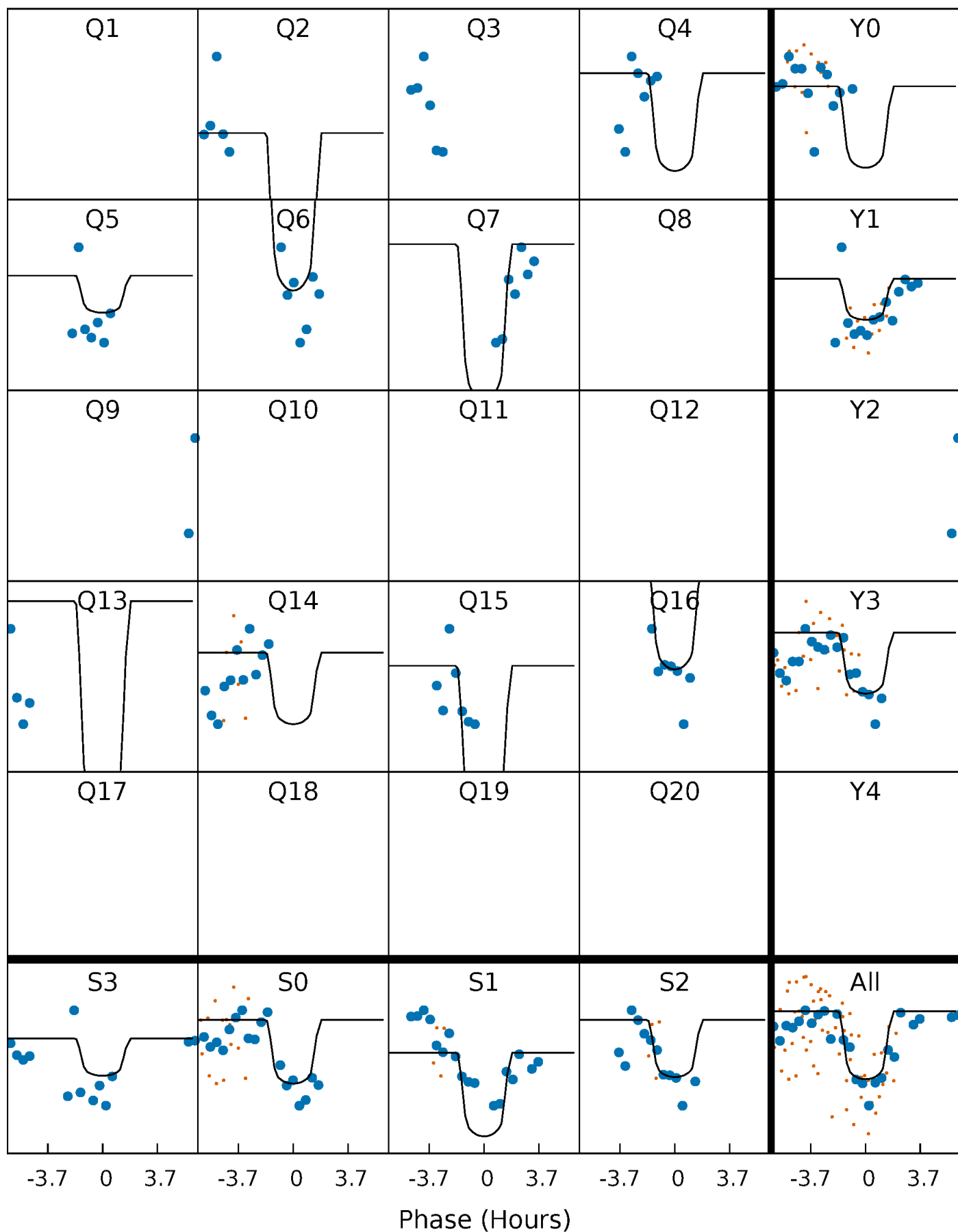
PDC Quarter-Phased Transit Curves

TCE 007176268-03 P= 79.682941 Days $T_0=165.313349$ (BKJD)



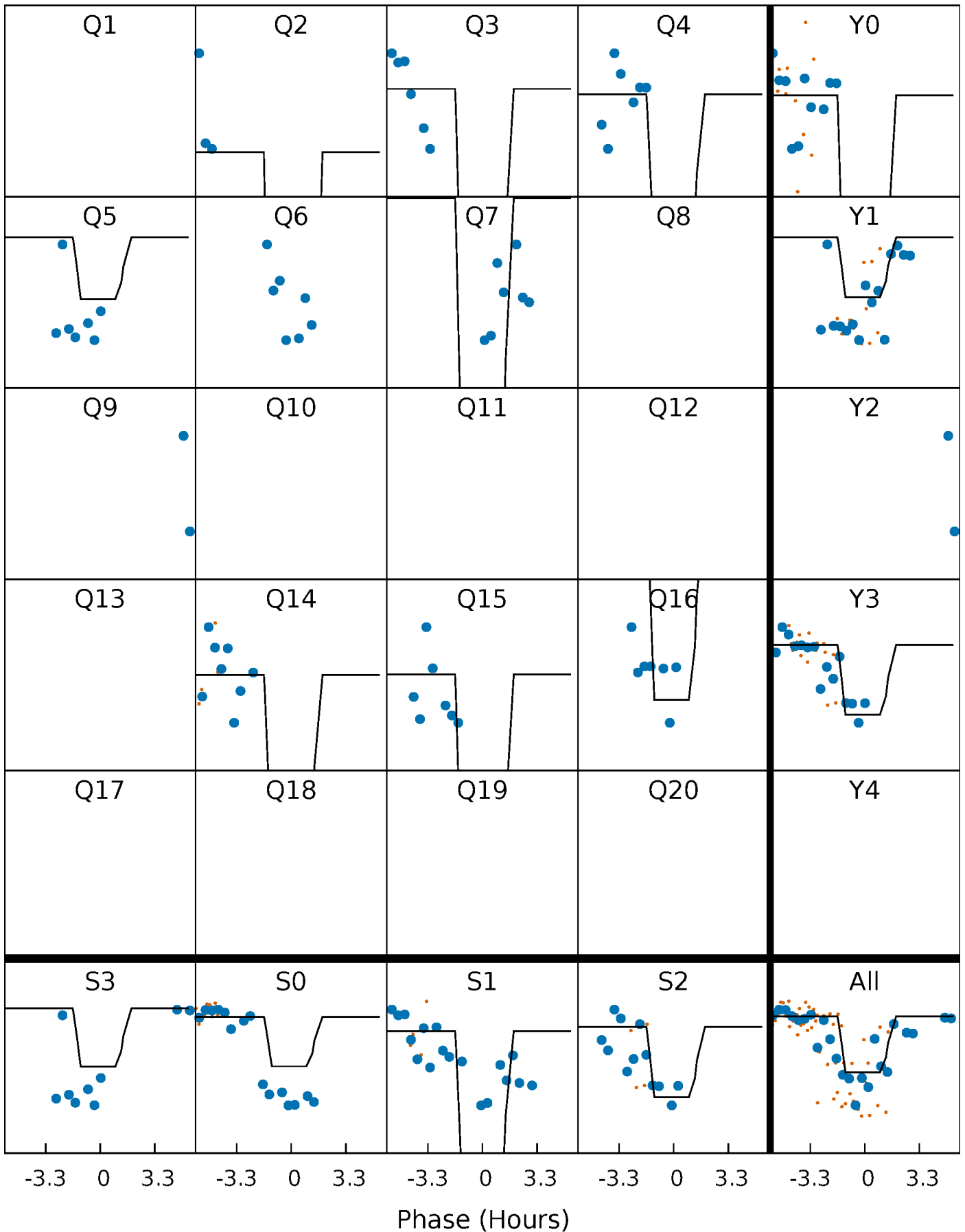
DV Quarter-Phased Transit Curves

TCE 007176268-03 P= 79.682941 Days $T_0=165.313349$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

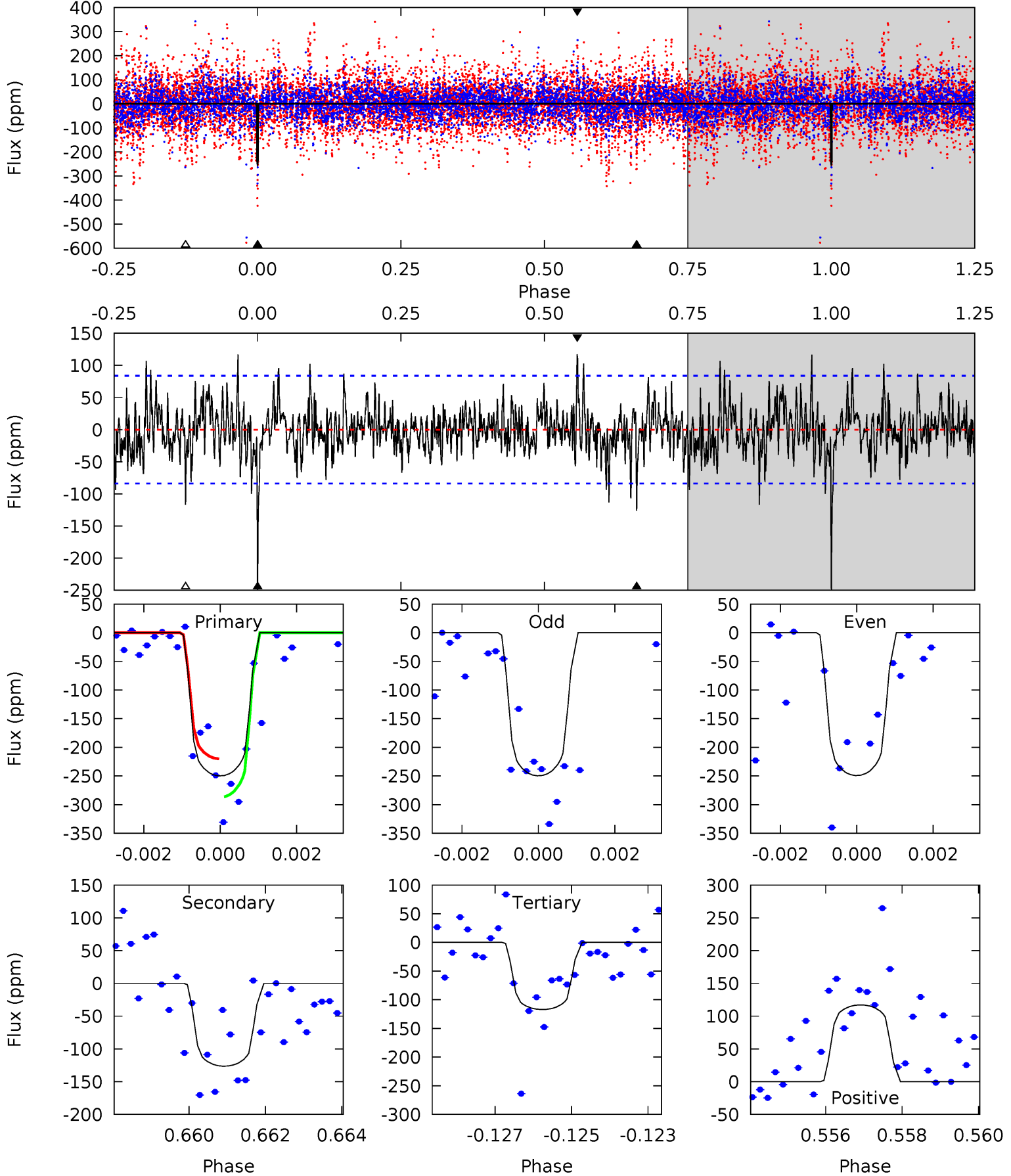
TCE 007176268-03 P= 79.684182 Days $T_0=165.333033$ (BKJD)



DV Model-Shift Uniqueness Test

007176268-03, P = 79.682941 Days, E = 85.630408 Days

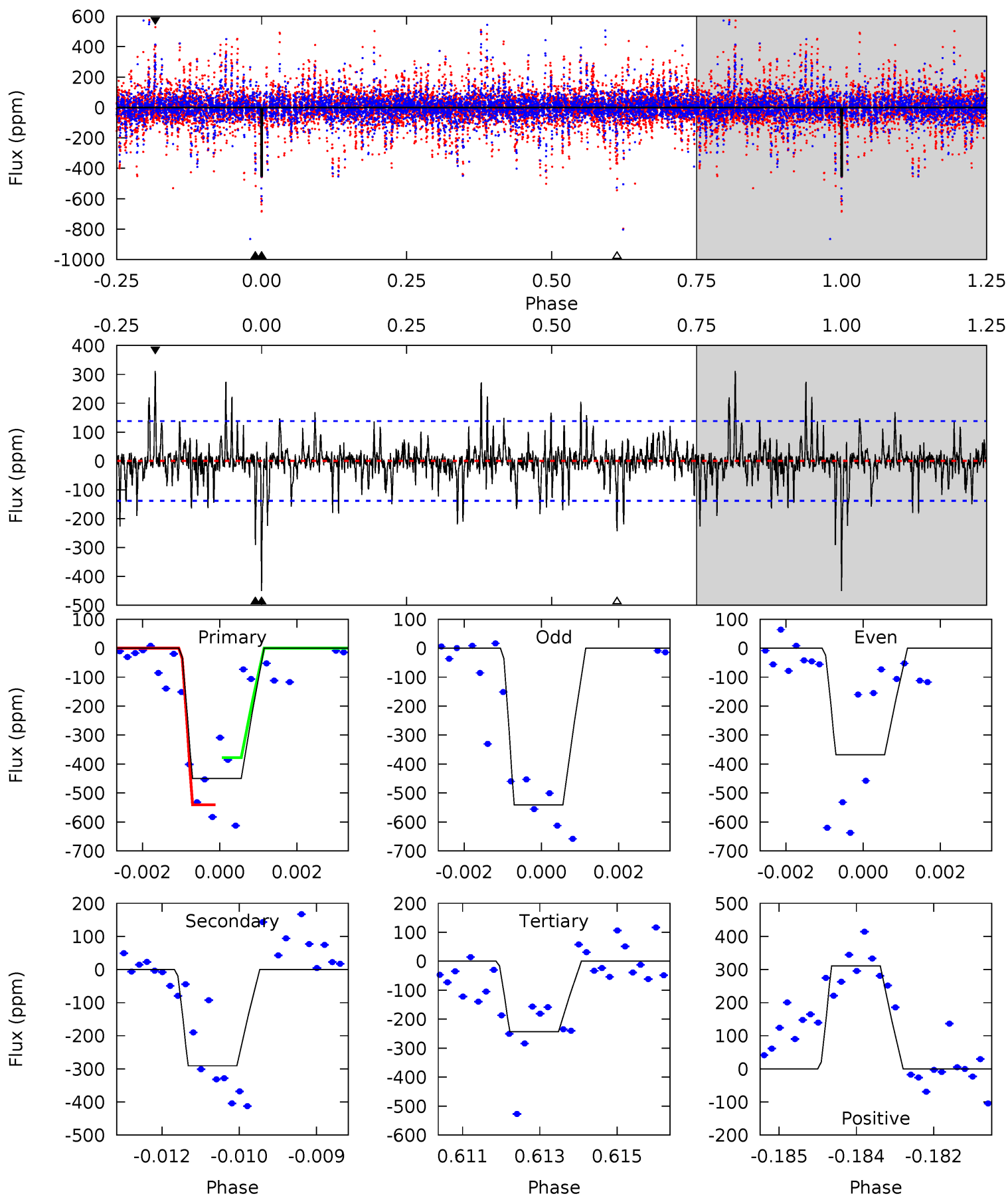
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.9	8.05	7.45	7.46	5.33	3.10	1.97	8.45	8.45	0.60	0.59	0.01	0.91	0.32	2.12



Alt Model-Shift Uniqueness Test

007176268-03, P = 79.684182 Days, E = 85.648851 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.4	11.3	9.42	12.1	5.35	3.13	1.98	8.02	5.39	1.85	-0.78	3.01	0.91	0.41	0



Stellar Parameters For KIC 007176268

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6698^{+151}_{-184}	$3.945^{+0.240}_{-0.129}$	$-0.140^{+0.300}_{-0.250}$	$2.138^{+0.501}_{-0.613}$	$1.469^{+0.186}_{-0.256}$	$0.212^{+0.314}_{-0.082}$
	+2%/-3%	+6%/-3%	+214%/-179%	+23%/-29%	+13%/-17%	+148%/-39%
Source	PHO1	FLK73	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 007176268-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-126 ± 16	$3.70^{+1.71}_{-1.48}$	928^{+65}_{-70}	5518^{+1712}_{-782}	853^{+1549}_{-456}
Alt.	-291 ± 26	$4.44^{+1.74}_{-1.58}$	933^{+64}_{-67}	6177^{+1650}_{-773}	1362^{+1911}_{-654}

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 $A_{obs} \gg 1.0$

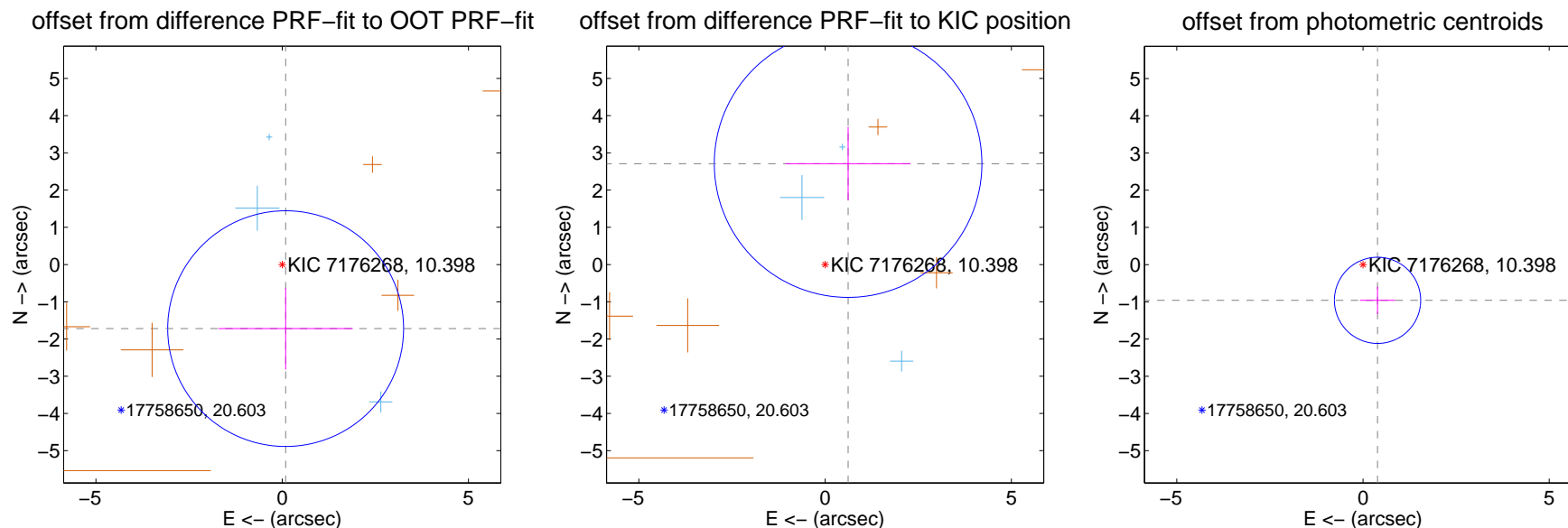
DV Centroid Data

Supplemental centroid analysis for 007176268-03. **Kepler magnitude: 10.40.** Transit SNR 9.40

There are 3 quarters with good PRF difference image offsets

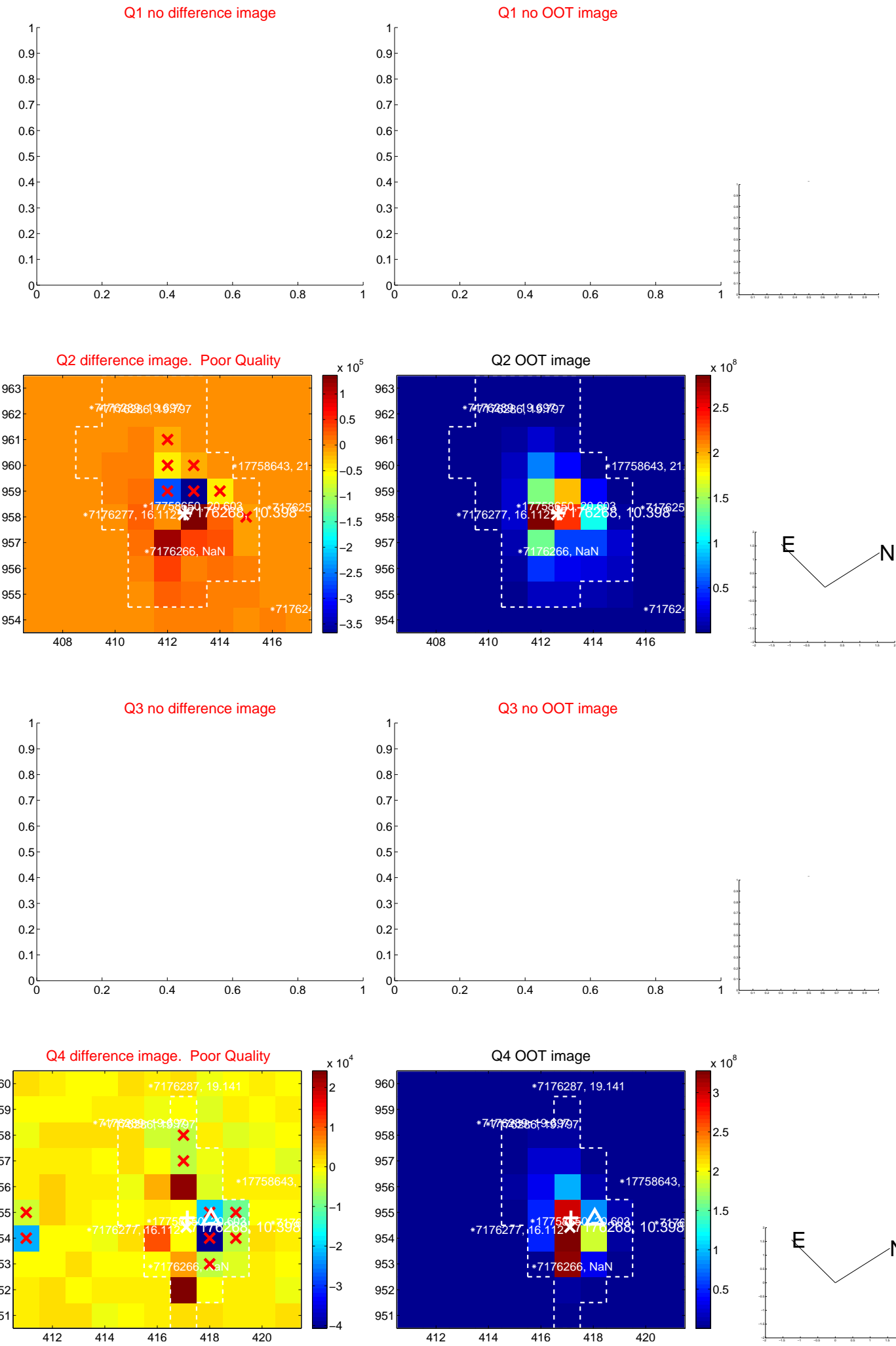
The direct PRF centroid is offset from the target star catalog position by about 1.25 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.724 ± 1.055	1.63	-0.093 ± 1.801	-1.722 ± 1.099
PRF-fit source offset from KIC position	2.779 ± 1.197	2.32	-0.617 ± 1.679	2.710 ± 0.989
photometric centroid source offset	1.04 ± 0.39	2.69	-0.39 ± 0.47	-0.96 ± 0.37

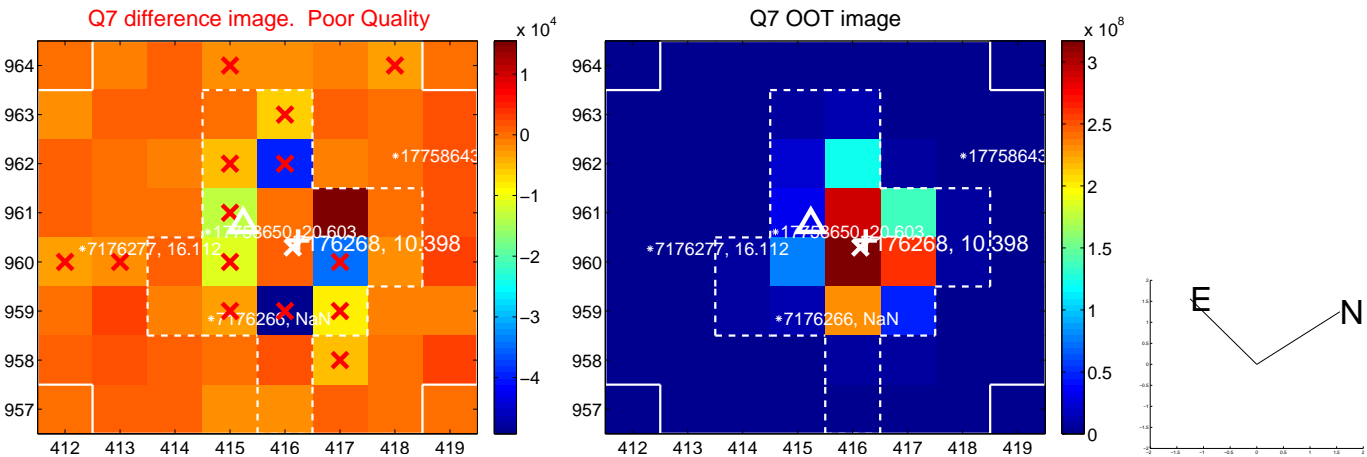
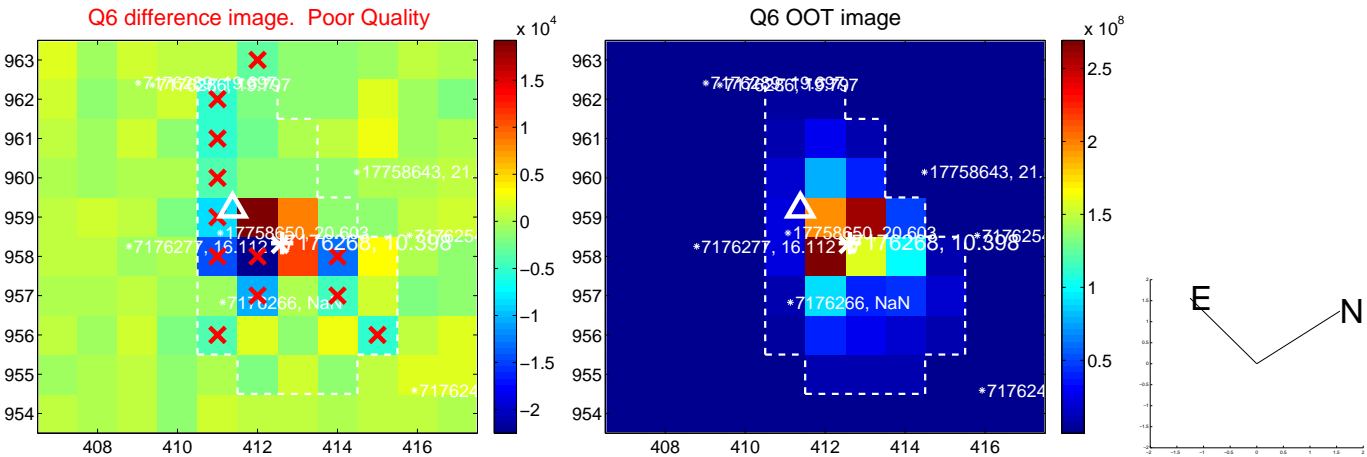
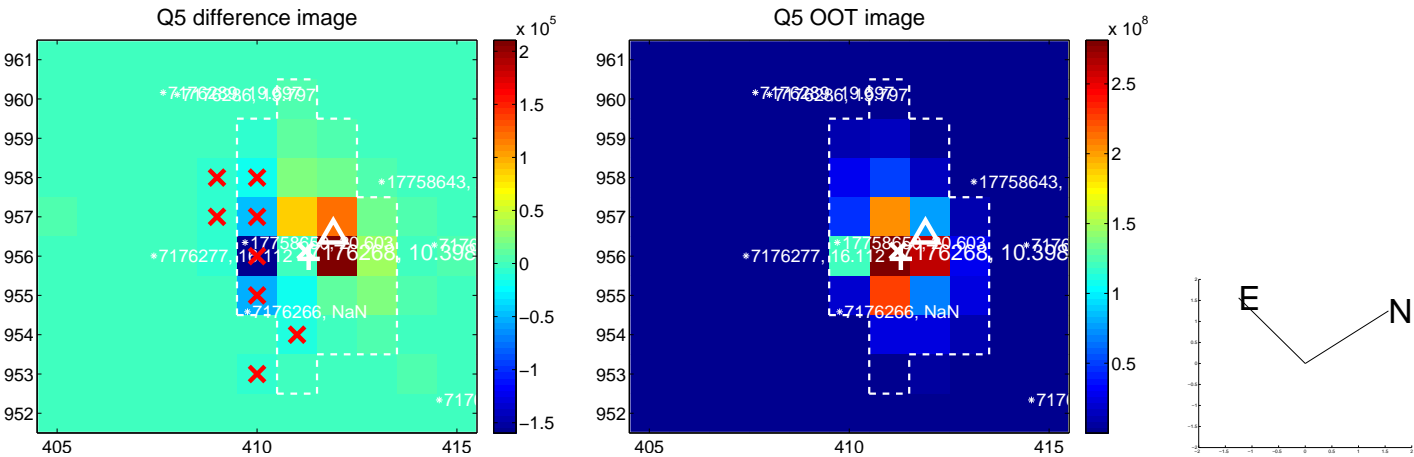


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

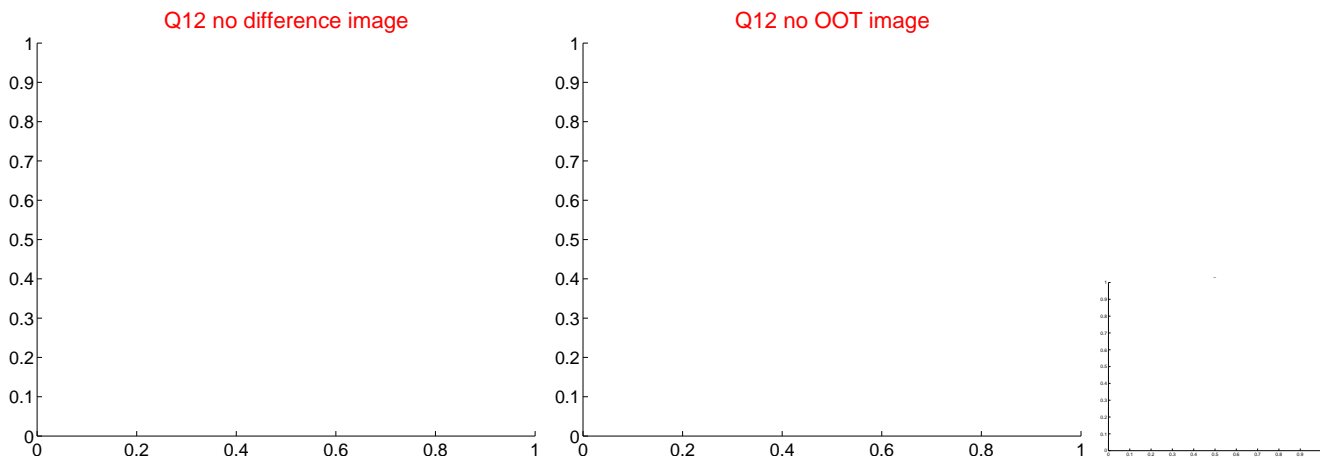
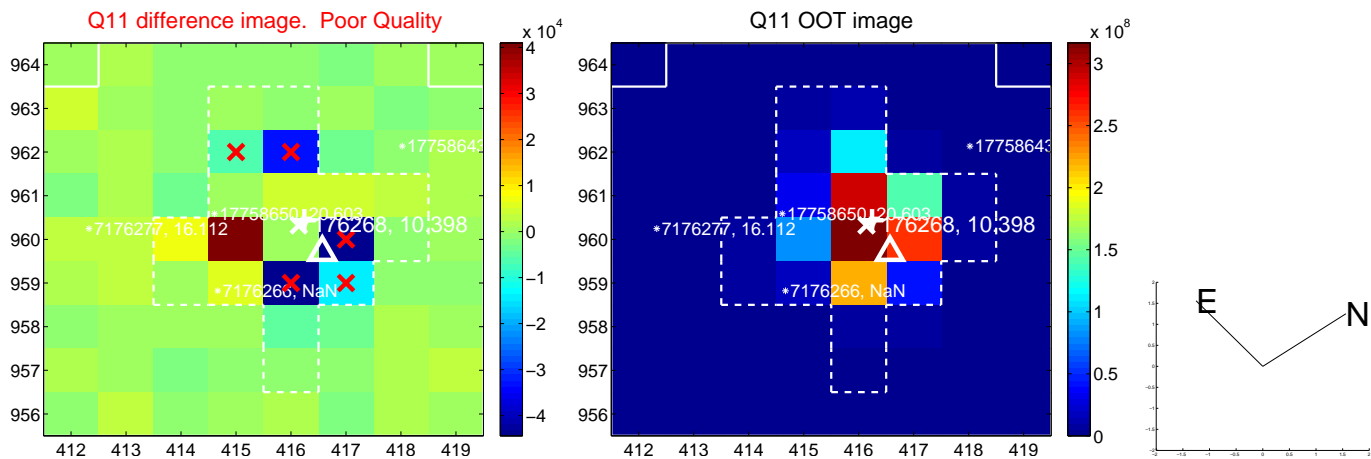
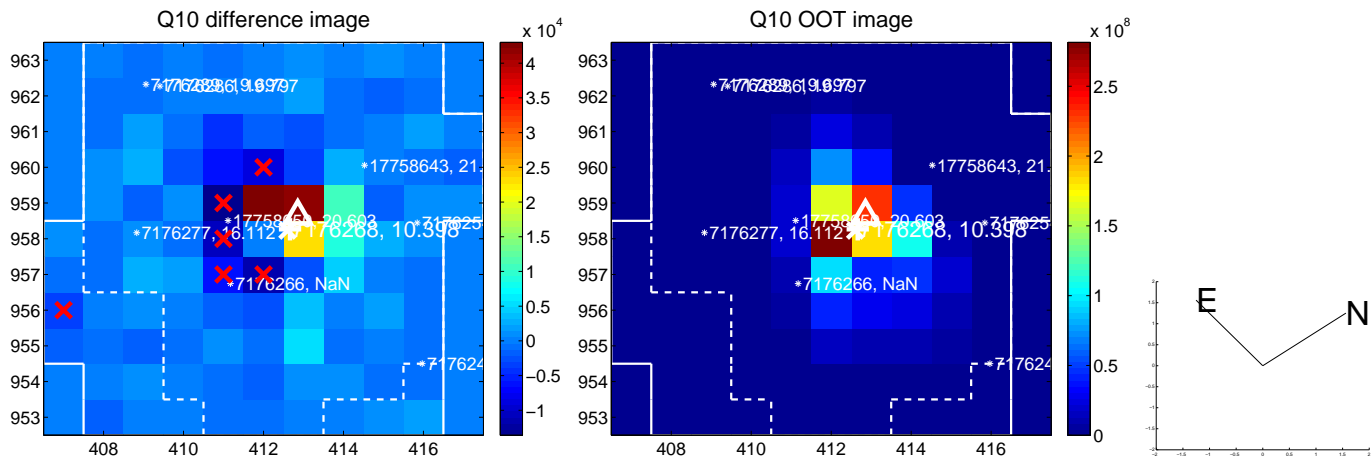
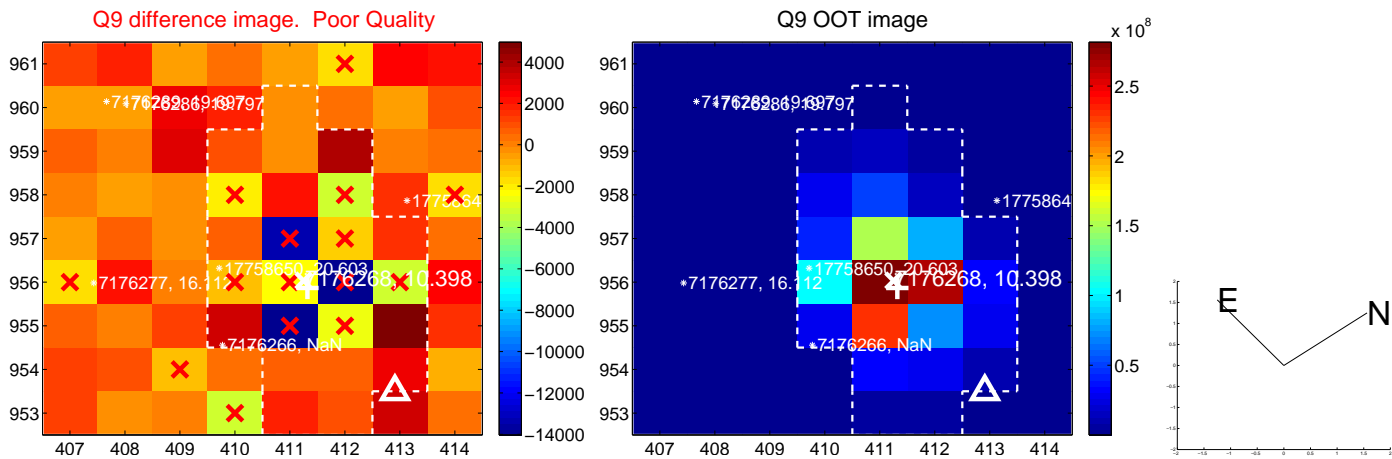
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



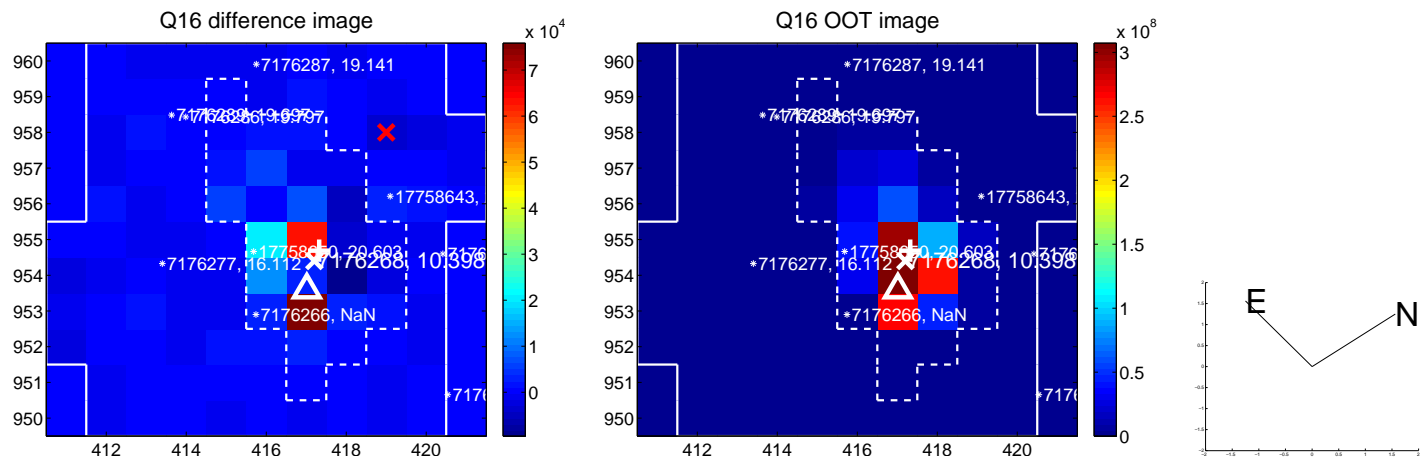
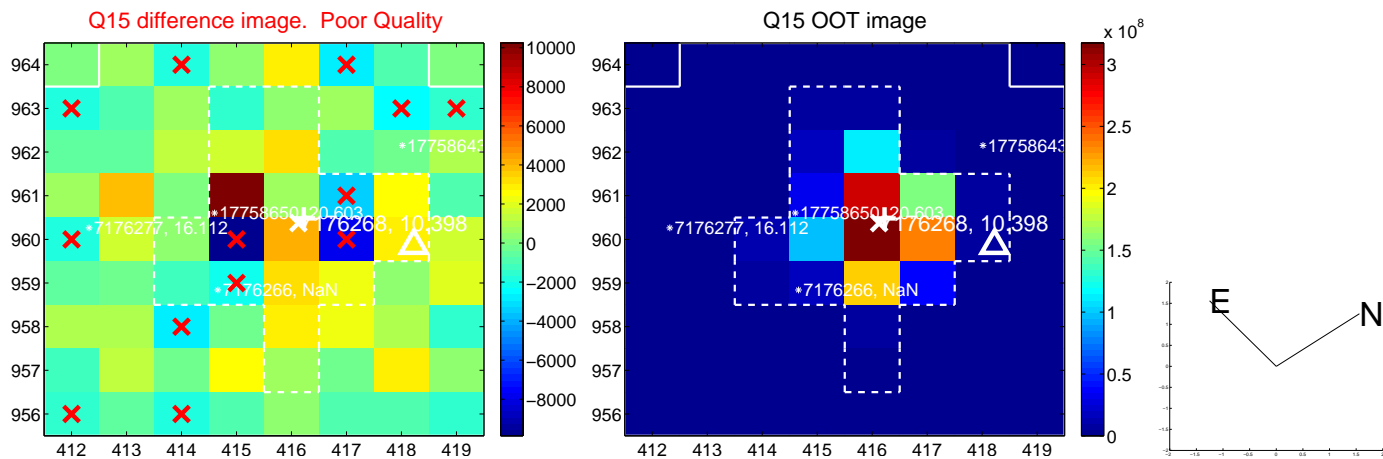
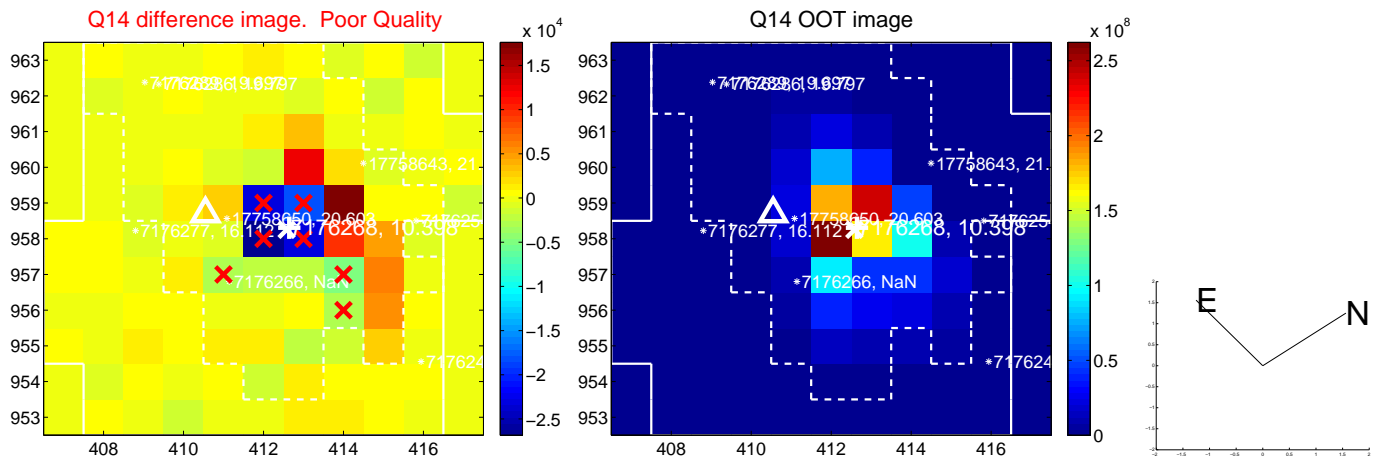
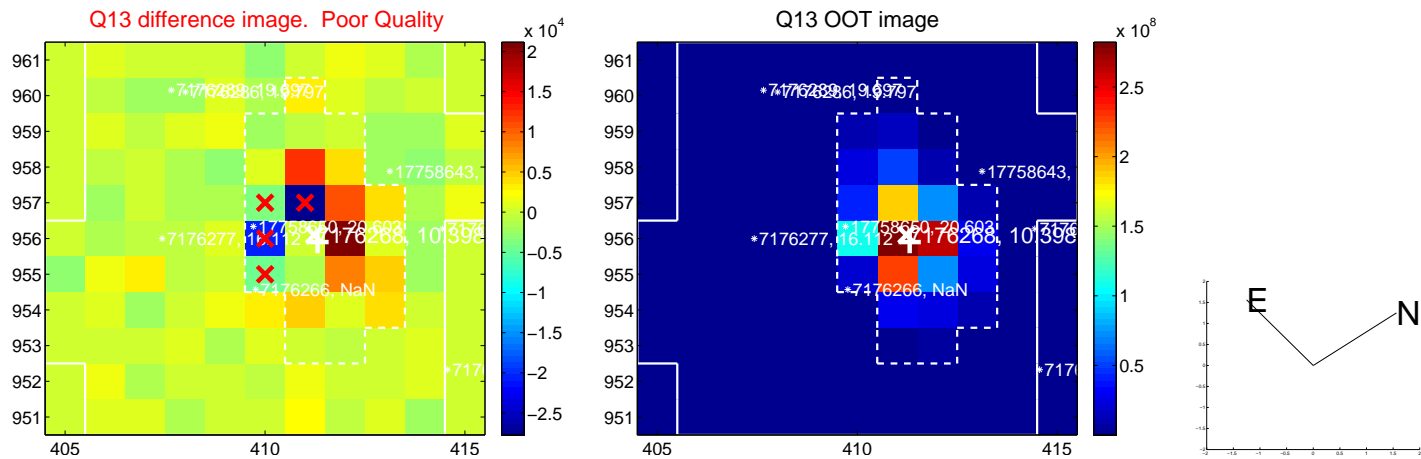
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



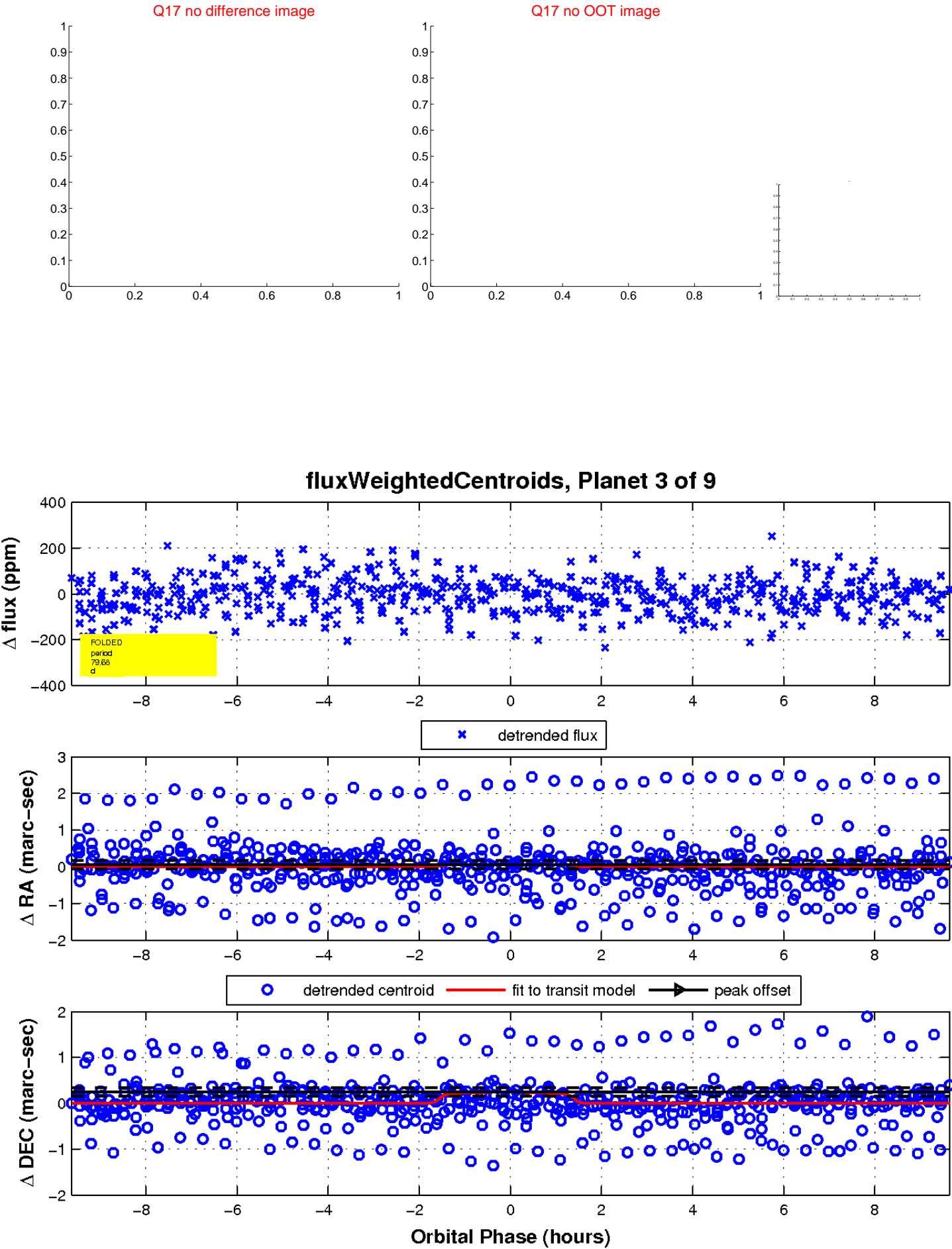
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

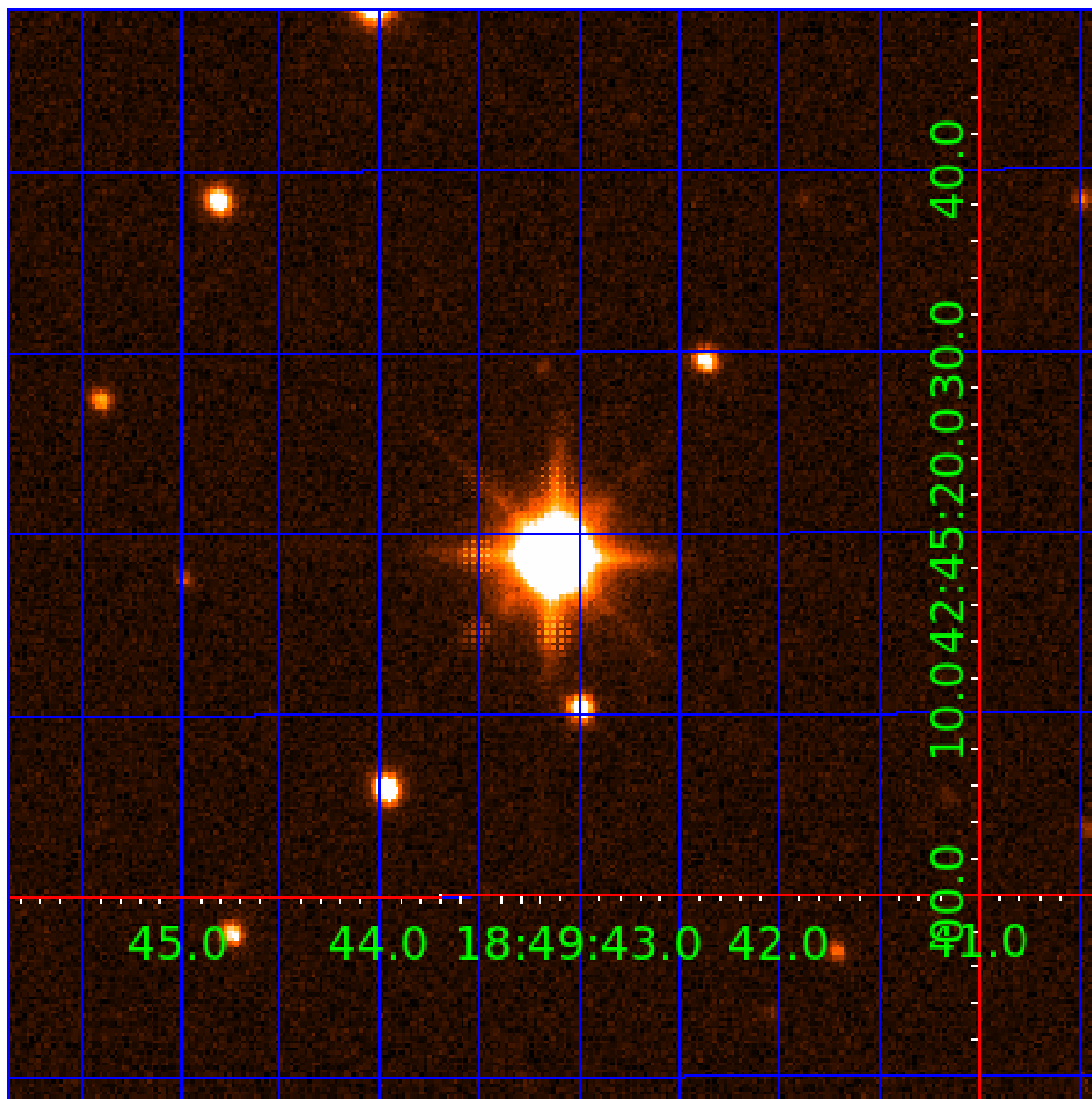


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007176268

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})
007176268-01	OBS	No	0.813753	132.060153	12.8	5.202	10.2	10.8	2.14	6698	0.84	21912.38
007176268-02	OBS	No	51.204386	153.350435	106.5	3.823	12.4	4.7	2.14	6698	2.52	87.55
007176268-03	OBS	No	79.682941	165.313349	234.5	3.218	11.6	9.4	2.14	6698	3.77	48.55
007176268-04	OBS	No	102.901731	181.369342	163.1	3.825	12.8	8.5	2.14	6698	3.13	34.52
007176268-05	OBS	No	77.880572	171.840913	124.3	8.625	11.2	5.9	2.14	6698	2.76	50.05
007176268-06	OBS	No	174.110248	213.867569	311.3	7.376	11.3	9.7	2.14	6698	7.27	17.12
007176268-07	OBS	No	79.596048	135.056846	103.3	5.051	9.8	4.1	2.14	6698	2.48	48.62
007176268-08	OBS	No	518.428552	304.103724	317.1	7.383	8.8	9.1	2.14	6698	4.44	4.00
007176268-09	OBS	No	58.906583	179.024332	178.2	3.792	7.3	7.4	2.14	6698	4.51	72.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007176268-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007176268-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007176268-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007176268-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007176268-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_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.

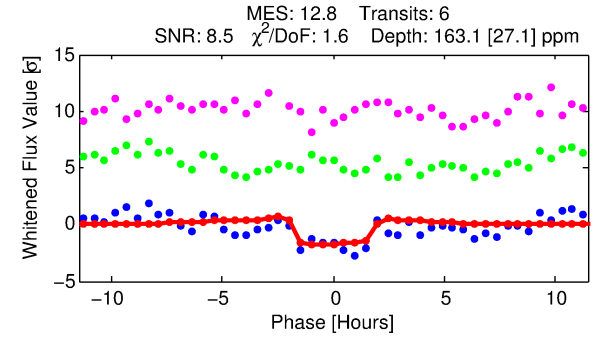
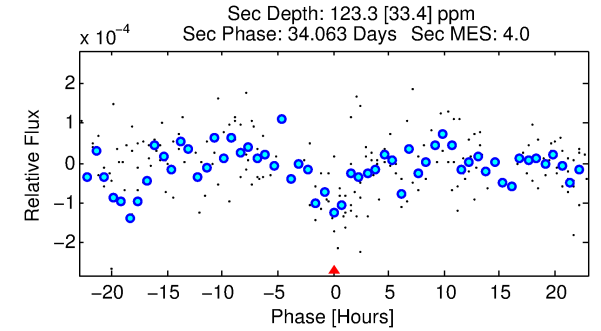
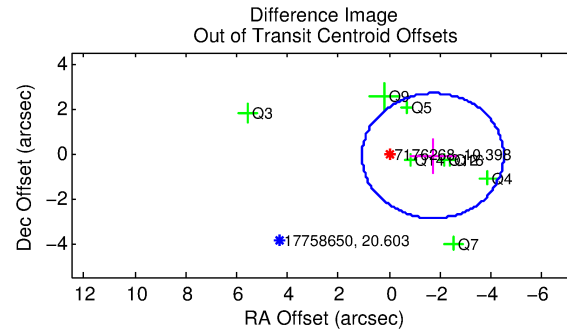
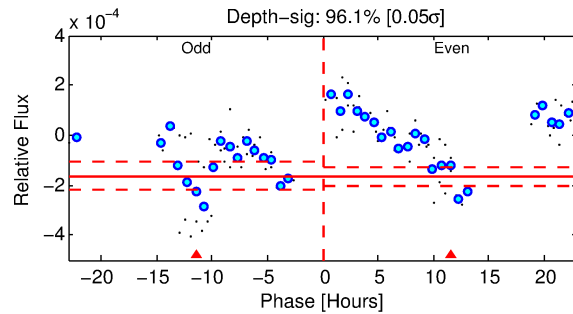
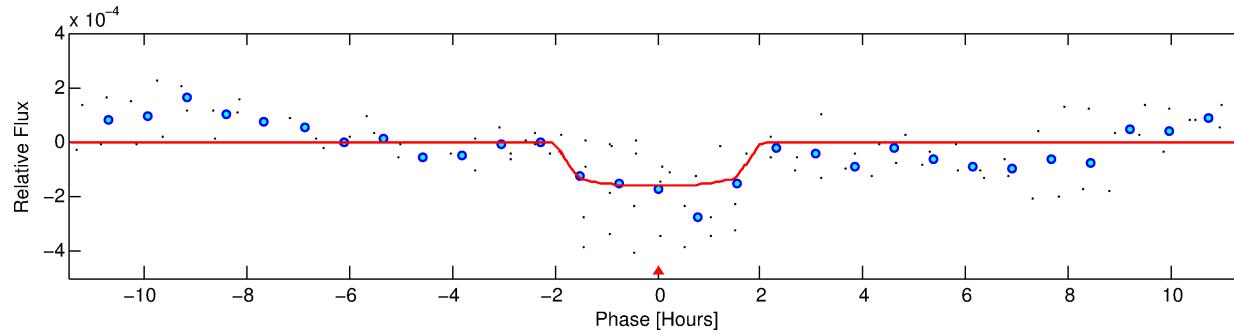
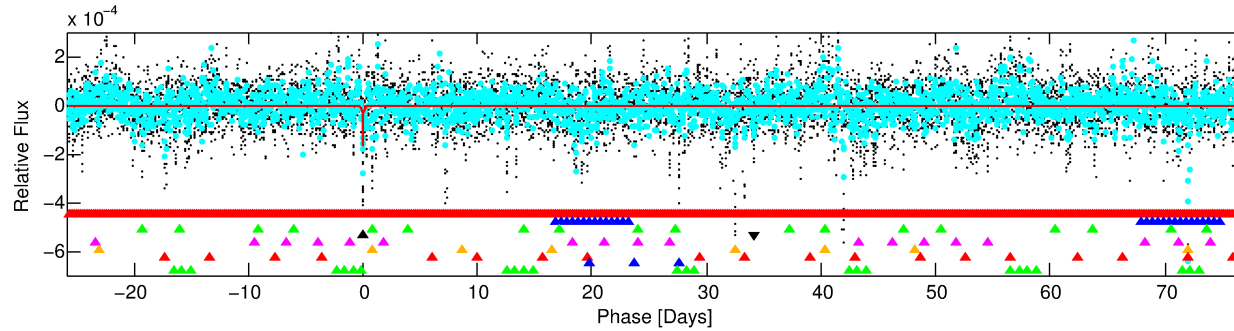
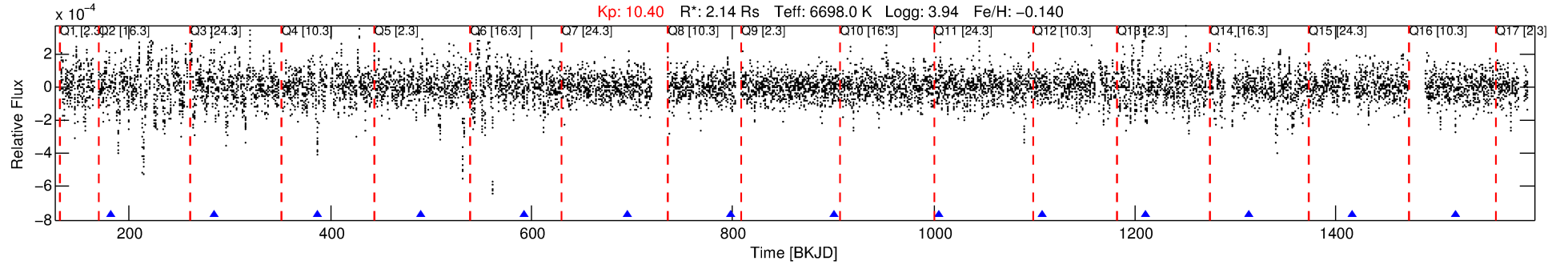
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007176268-04

No Significant Match Found

DV One-Page Summary

KIC: 7176268 Candidate: 4 of 9 Period: 102.902 d



DV Fit Results:

Period = 102.90173 [0.00144] d
Epoch = 181.3693 [0.0112] BKJD
Rp/R* = 0.0134 [0.0122]
a/R* = 104.02 [556.75]
b = 0.88 [1.40]
Seff = 34.52 [14.82]
Teq = 618 [66] K
Rp = 3.13 [2.99] Re
a = 0.4886 [0.1297] AU
Ag = 1650.30 [3116.53] [0.53 σ]
Teffp = 6091 [2810] K [1.95 σ]

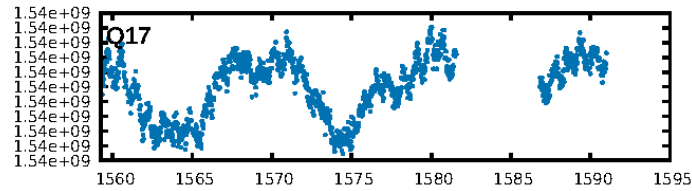
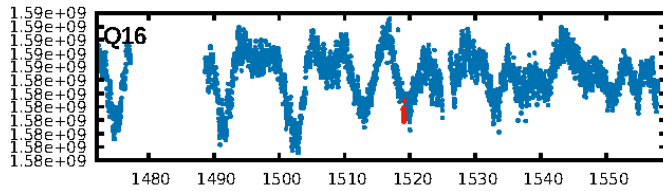
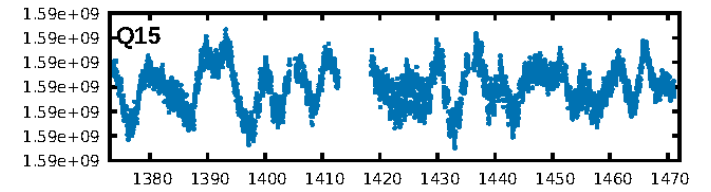
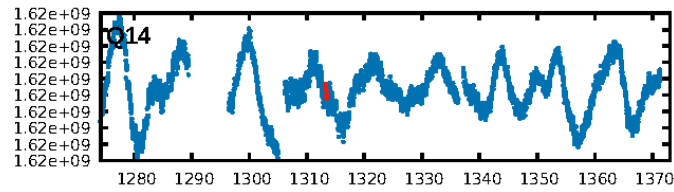
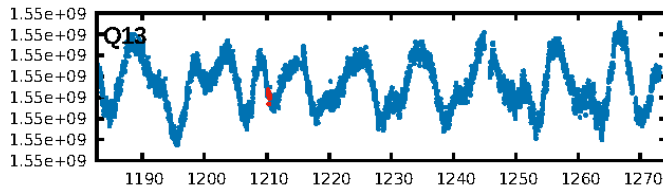
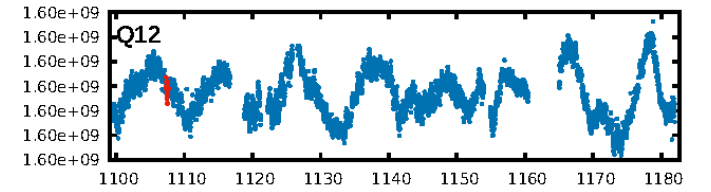
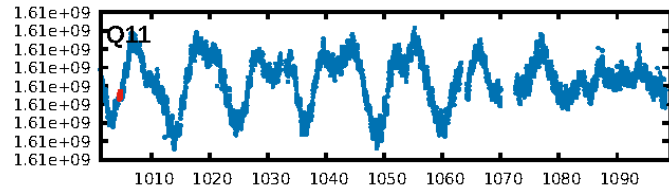
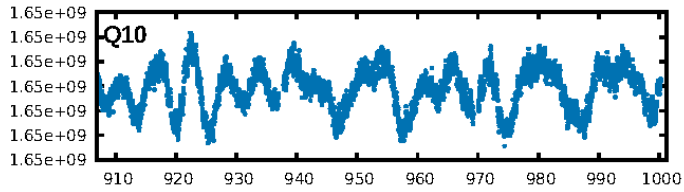
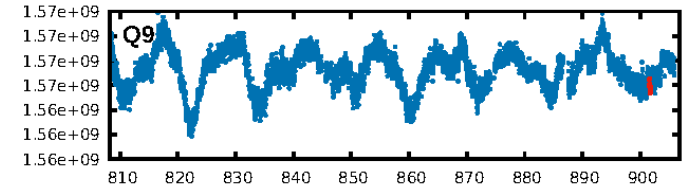
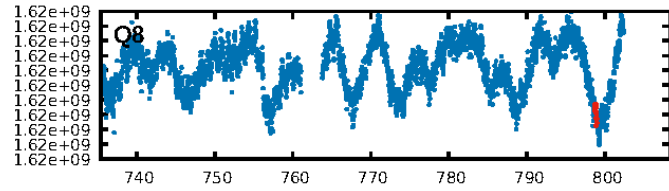
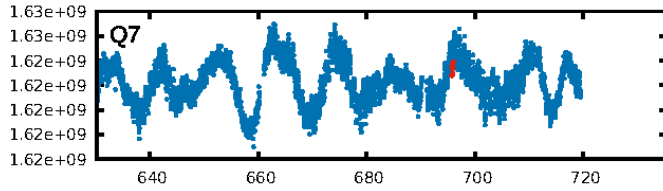
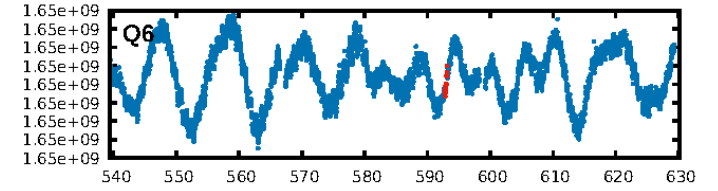
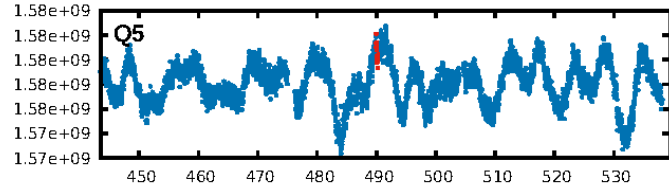
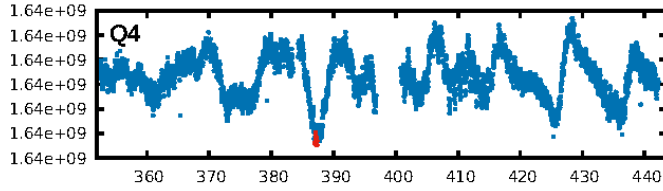
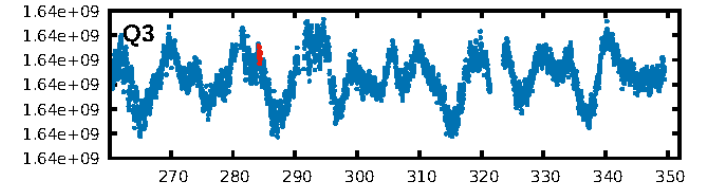
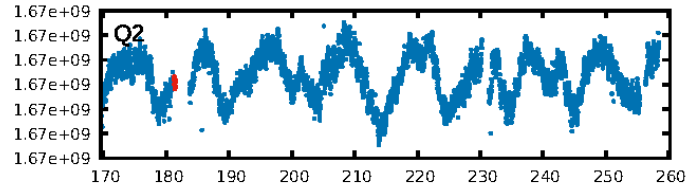
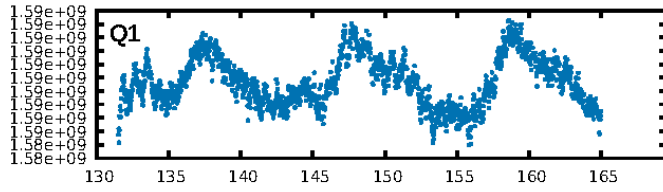
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [111.48 σ]
LongPeriod-sig: 100.0% [205.70 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 80.3%
Bootstrap-pfa: 4.28e-20
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 3.431
Centroid-sig: 9.0%
Centroid-so: 0.785 arcsec [1.13 σ]
OotOffset-rm: 1.725 arcsec [1.86 σ]
KicOffset-rm: 1.937 arcsec [2.00 σ]
OotOffset-st: 1/2/3/2 [8]
KicOffset-st: 1/2/3/2 [8]
DiffImageQuality-fgm: 0.50 [4/8]
DiffImageOverlap-fno: 0.00 [0/11]

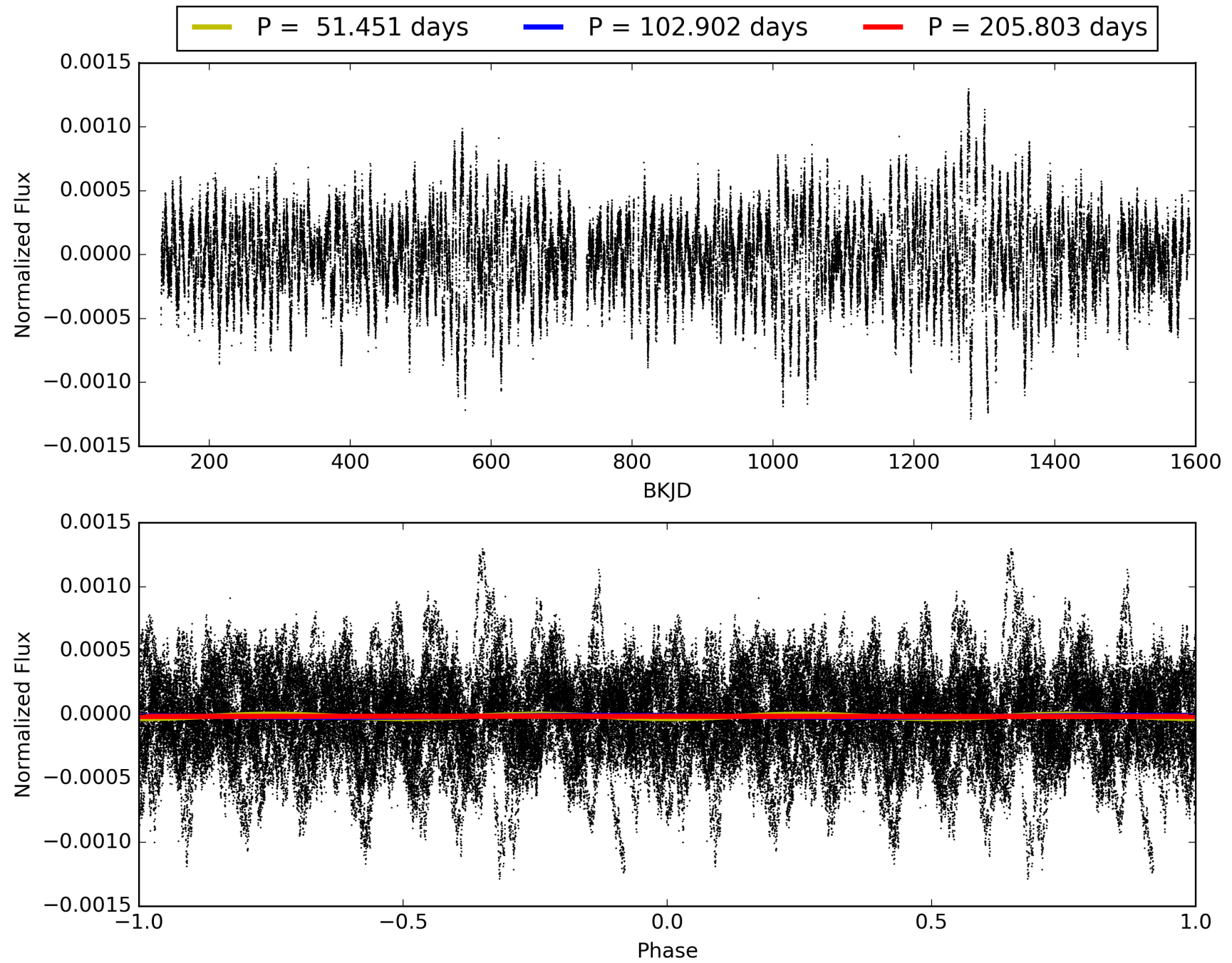
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 01:49:58 Z

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

TCE 007176268-04, PDC Light Curves

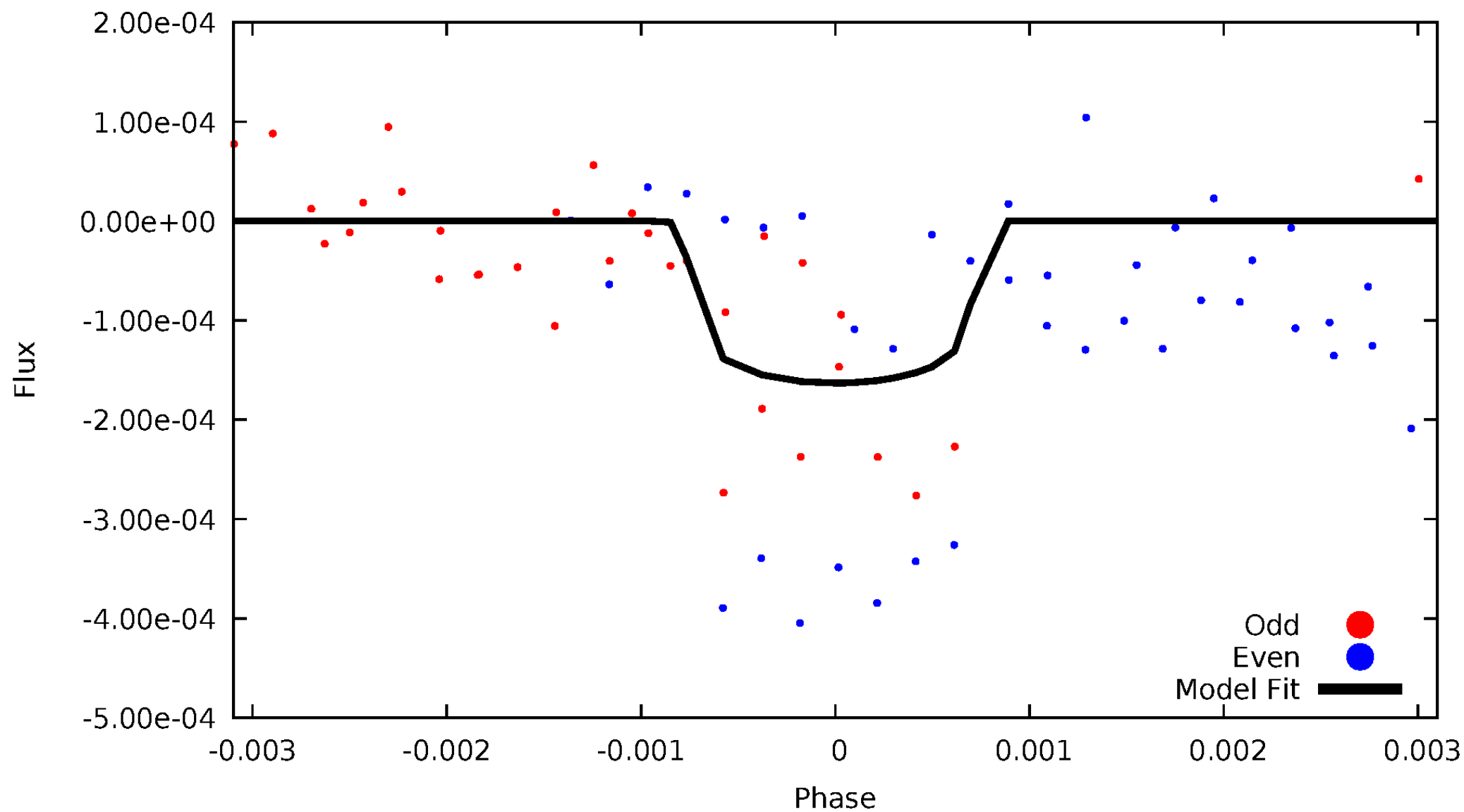


TCE 007176268-04



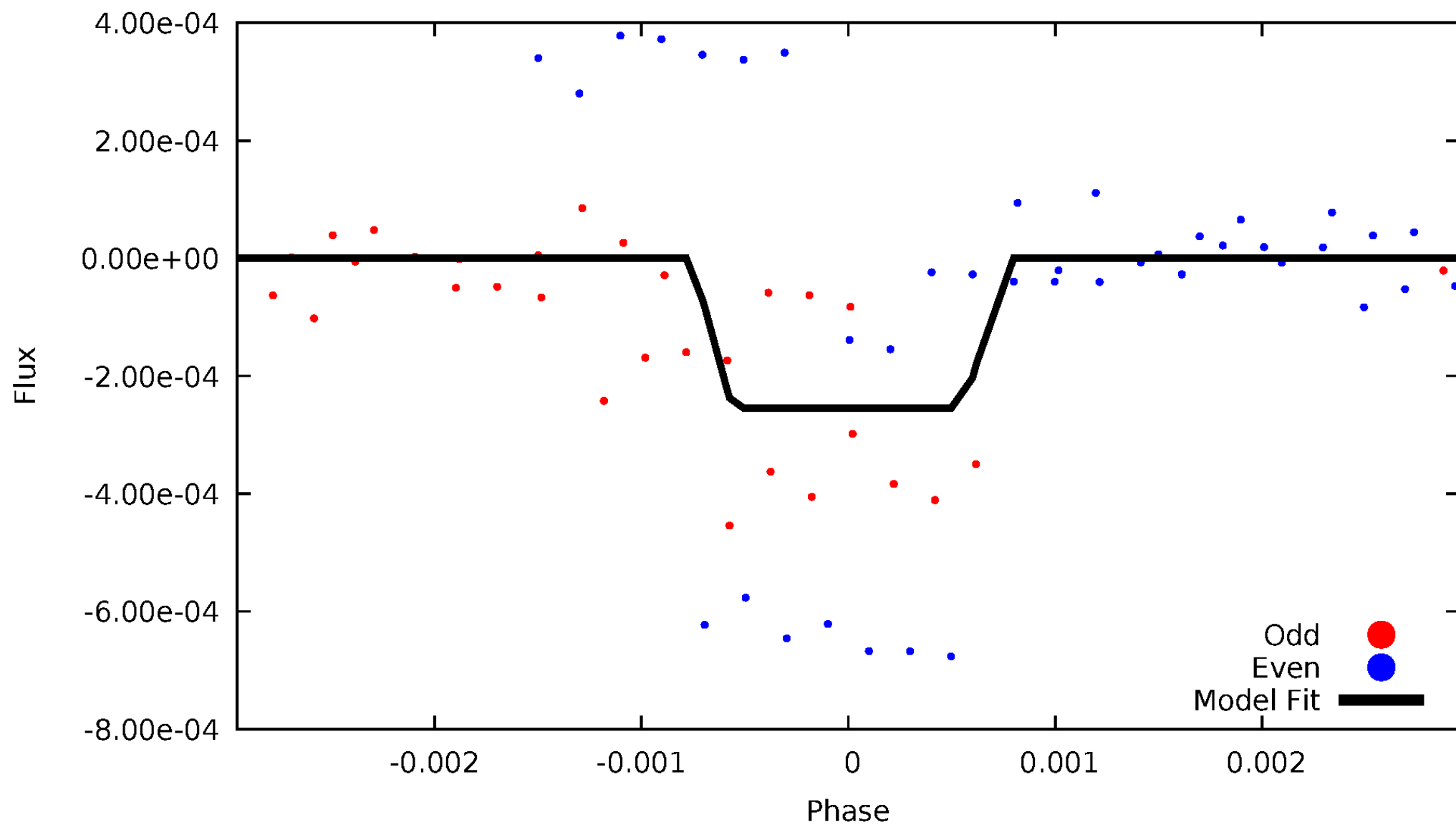
DV Odd/Even

TCE 007176268-04



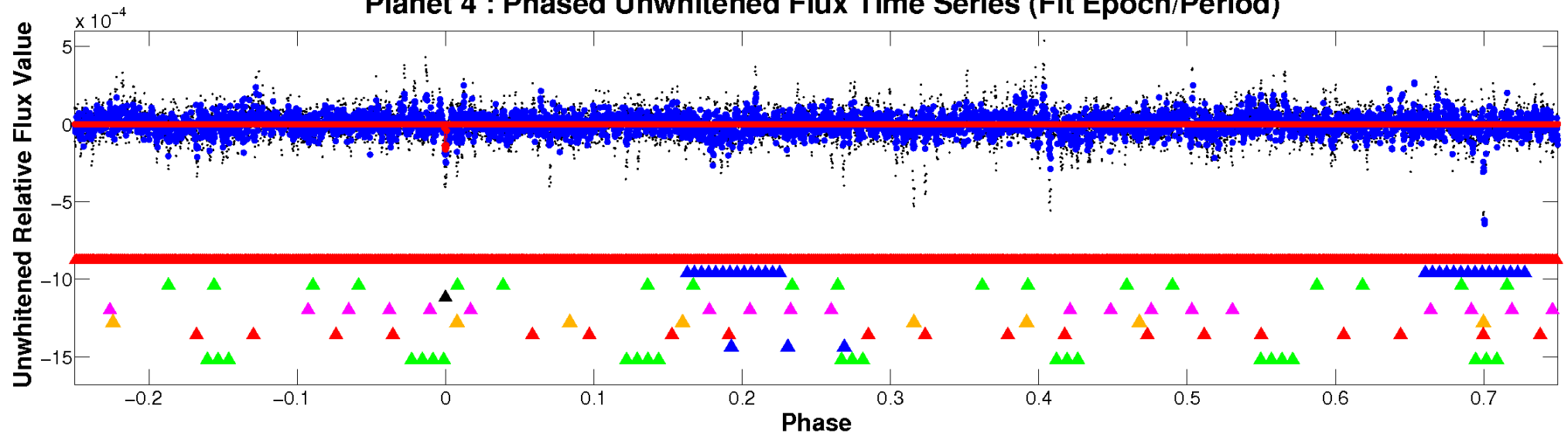
ALT Odd/Even

TCE 007176268-04

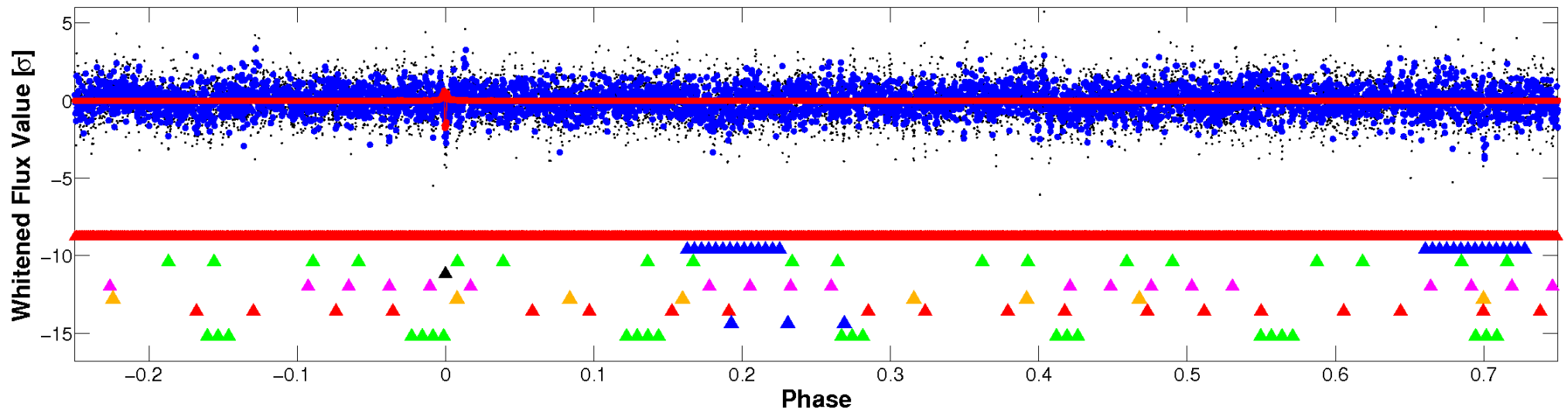


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

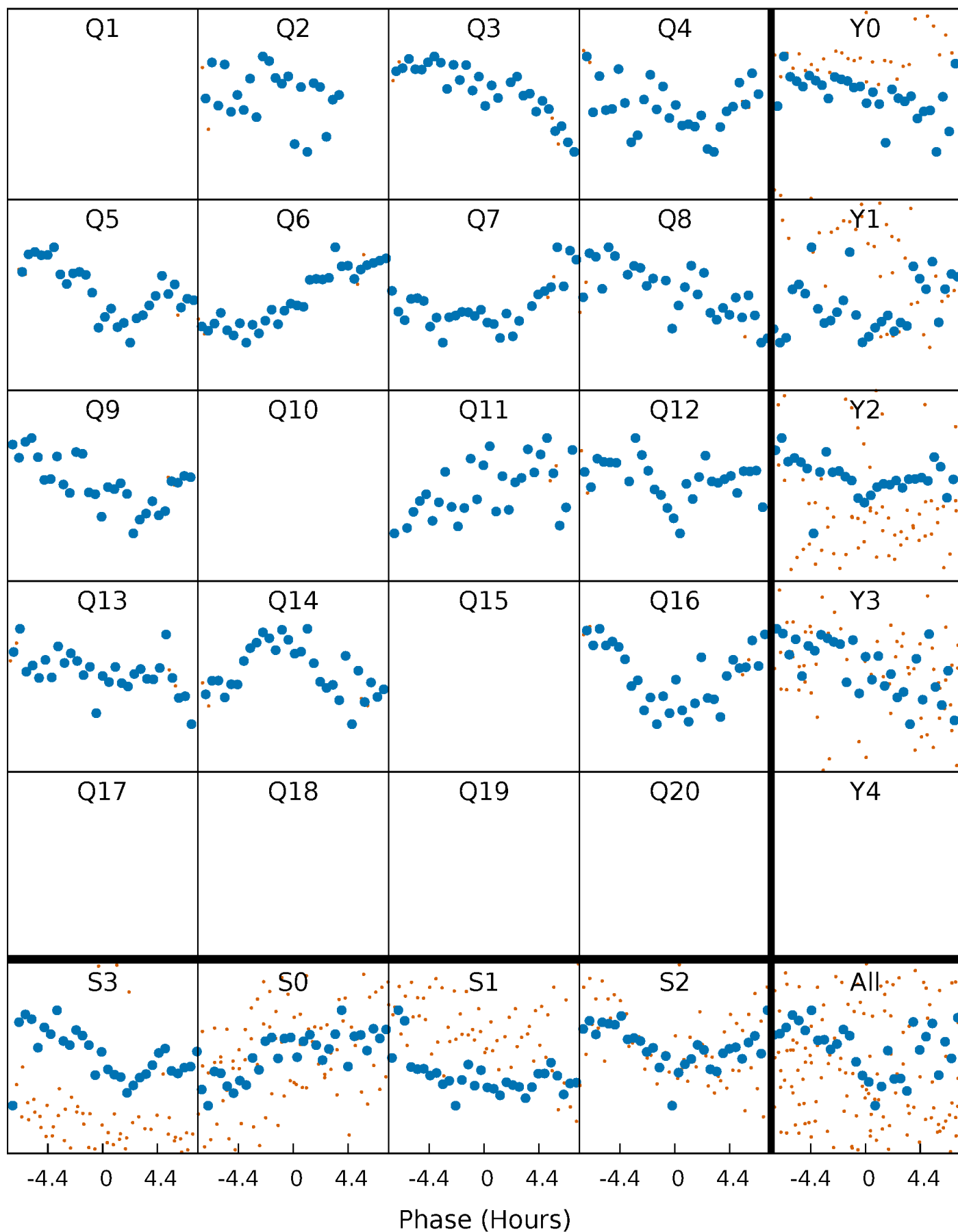


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



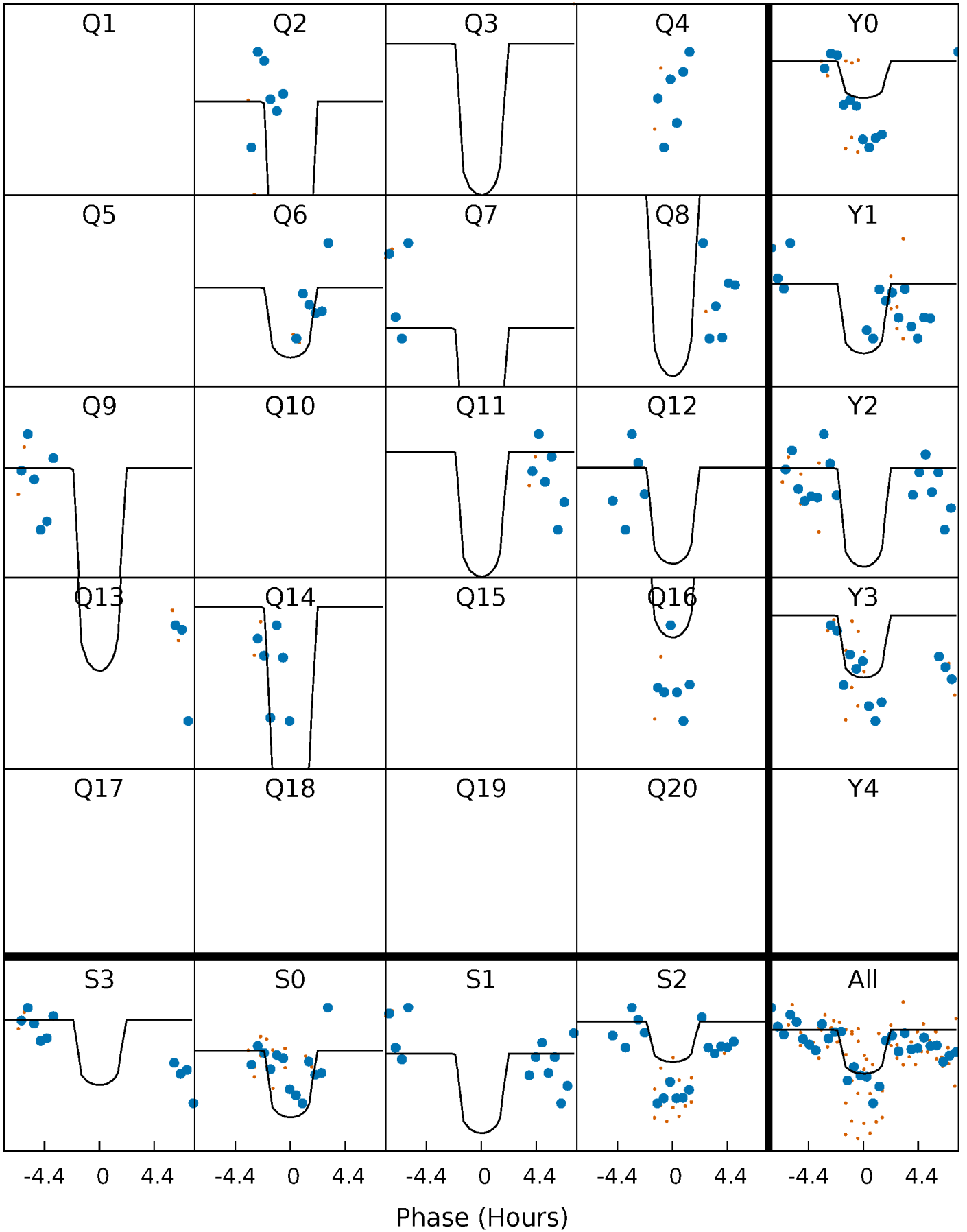
PDC Quarter-Phased Transit Curves

TCE 007176268-04 P=102.901731 Days $T_0=181.369342$ (BKJD)



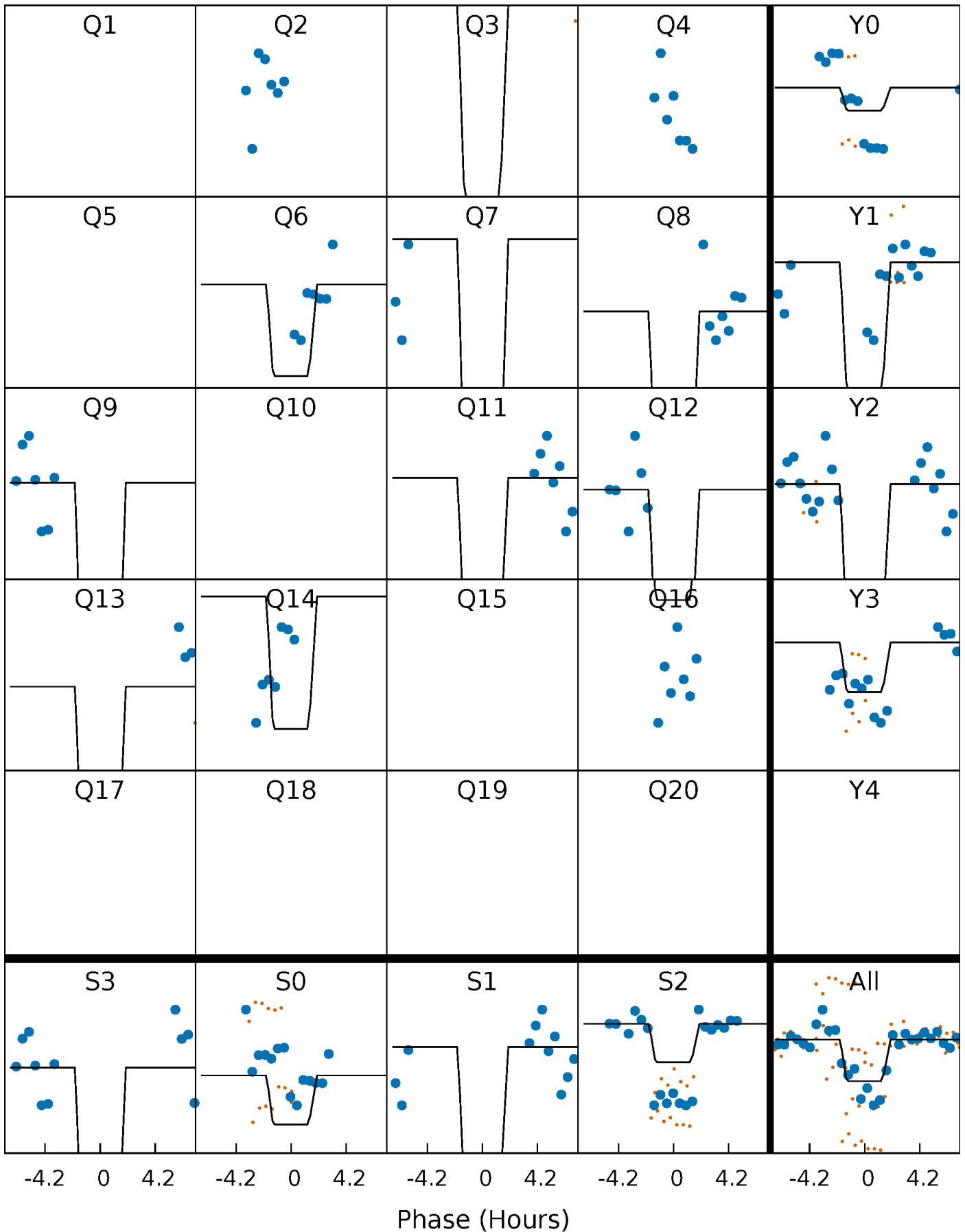
DV Quarter-Phased Transit Curves

TCE 007176268-04 P=102.901731 Days $T_0=181.369342$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

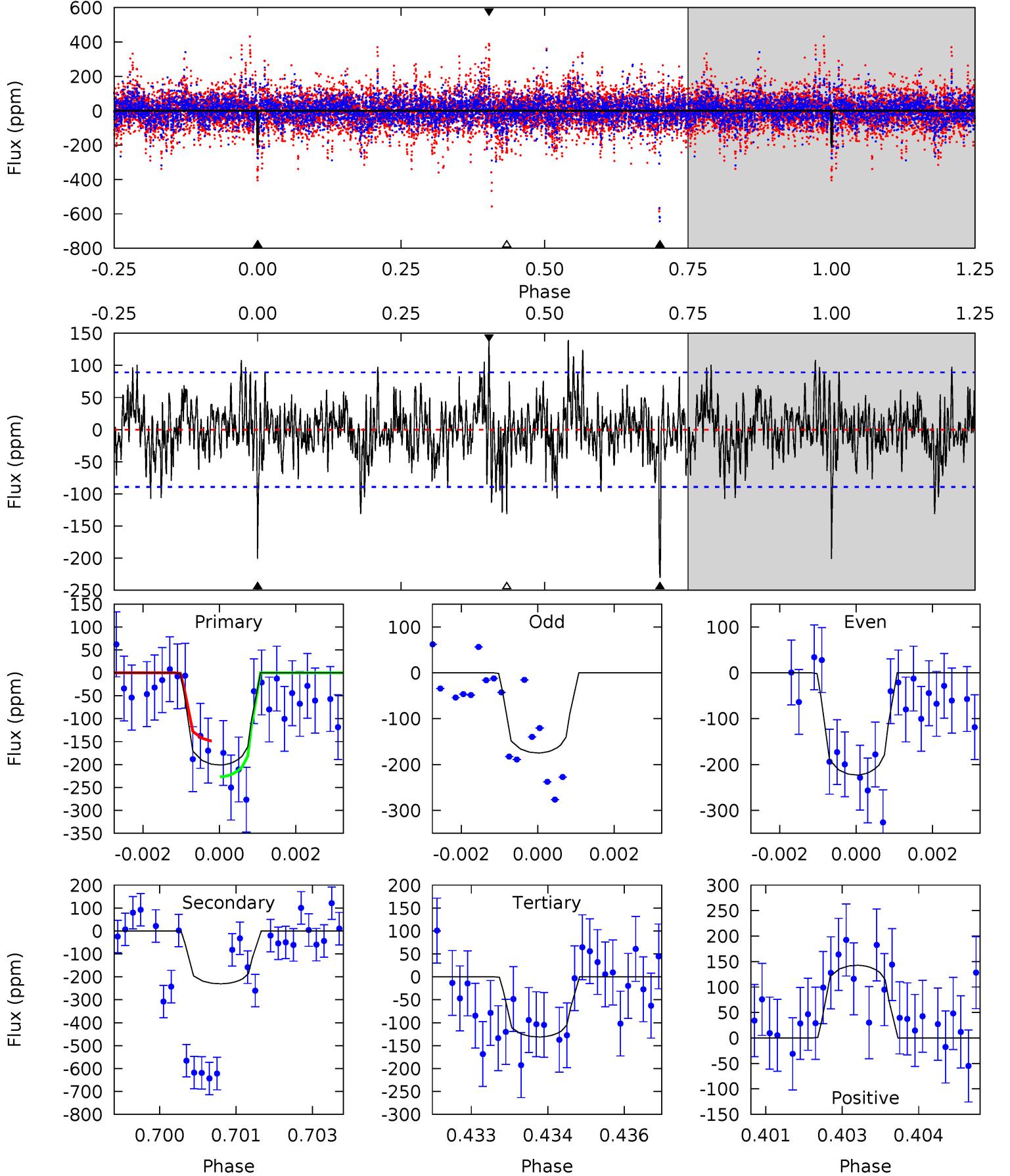
TCE 007176268-04 P=102.900634 Days $T_0=181.383419$ (BKJD)



DV Model-Shift Uniqueness Test

007176268-04, $P = 102.901731$ Days, $E = 78.467611$ Days

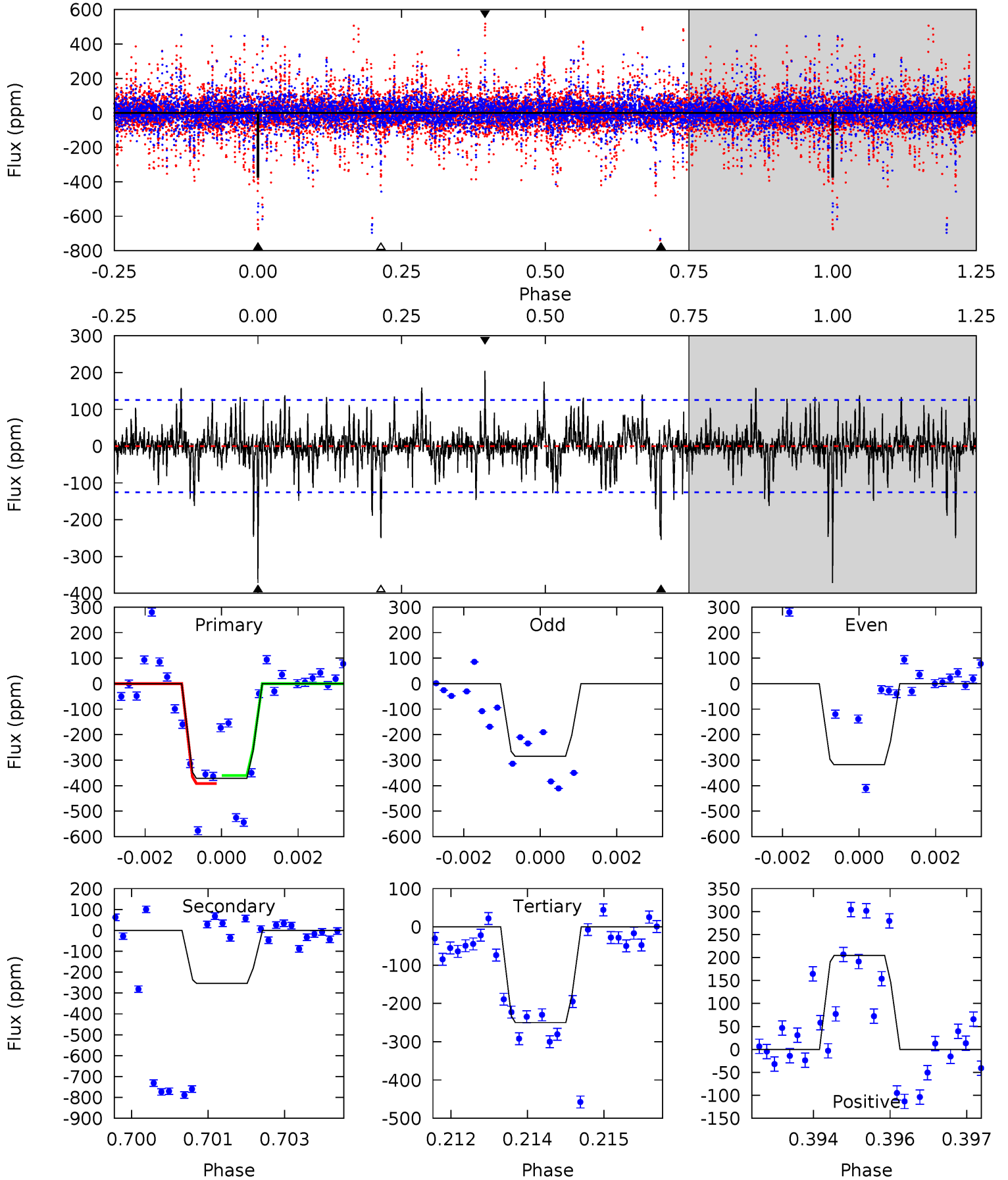
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	13.9	7.89	8.58	5.36	3.15	2.17	4.21	3.51	5.97	5.27	1.43	1.76	0.38	2.30



Alt Model-Shift Uniqueness Test

007176268-04, $P = 102.900634$ Days, $E = 78.482785$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.9	10.9	10.7	8.76	5.38	3.17	1.79	5.21	7.16	0.18	2.12	0.70	1.85	0.36	0.65



Stellar Parameters For KIC 007176268

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6698^{+151}_{-184}	$3.945^{+0.240}_{-0.129}$	$-0.140^{+0.300}_{-0.250}$	$2.138^{+0.501}_{-0.613}$	$1.469^{+0.186}_{-0.256}$	$0.212^{+0.314}_{-0.082}$
	+2%/-3%	+6%/-3%	+214%/-179%	+23%/-29%	+13%/-17%	+148%/-39%
Source	PHO1	FLK73	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 007176268-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-230 ± 17	$3.44^{+2.54}_{-2.18}$	853^{+58}_{-58}	6697^{+6402}_{-1569}	2550^{+15538}_{-1718}
Alt.	-254 ± 23	$3.84^{+2.80}_{-2.17}$	855^{+53}_{-62}	6439^{+4216}_{-1431}	2256^{+9586}_{-1527}

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 $A_{\text{obs}} \gg 1.0$

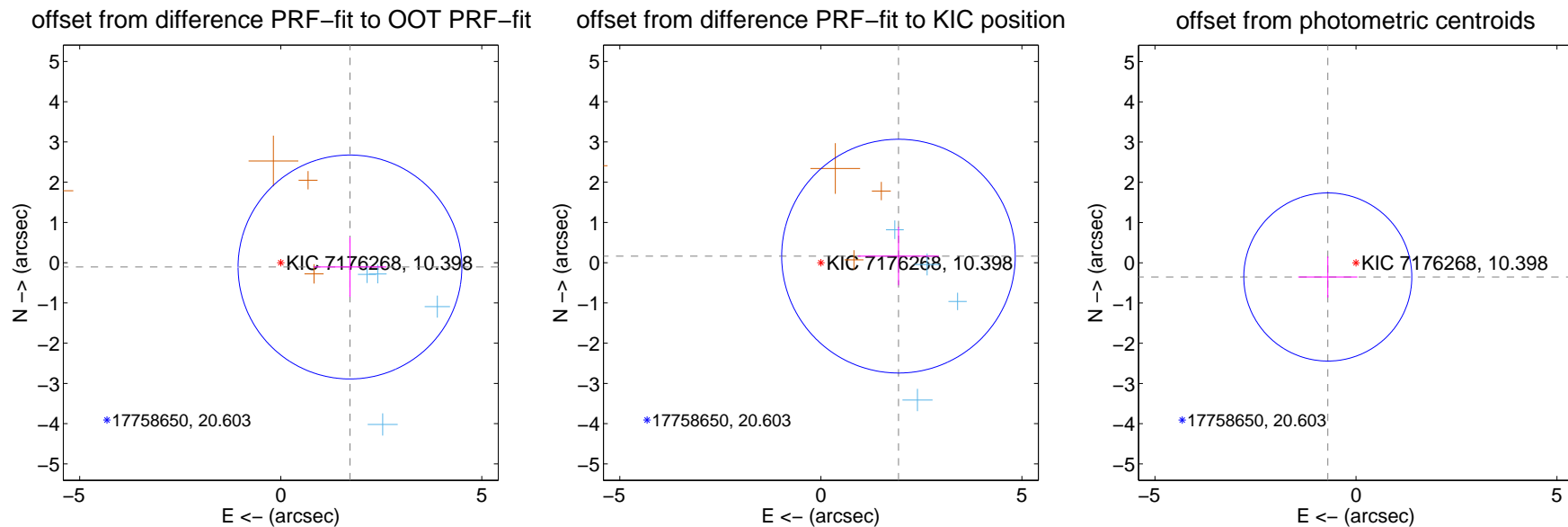
DV Centroid Data

Supplemental centroid analysis for 007176268-04. **Kepler magnitude: 10.40.** Transit SNR 8.54

There are 4 quarters with good PRF difference image offsets

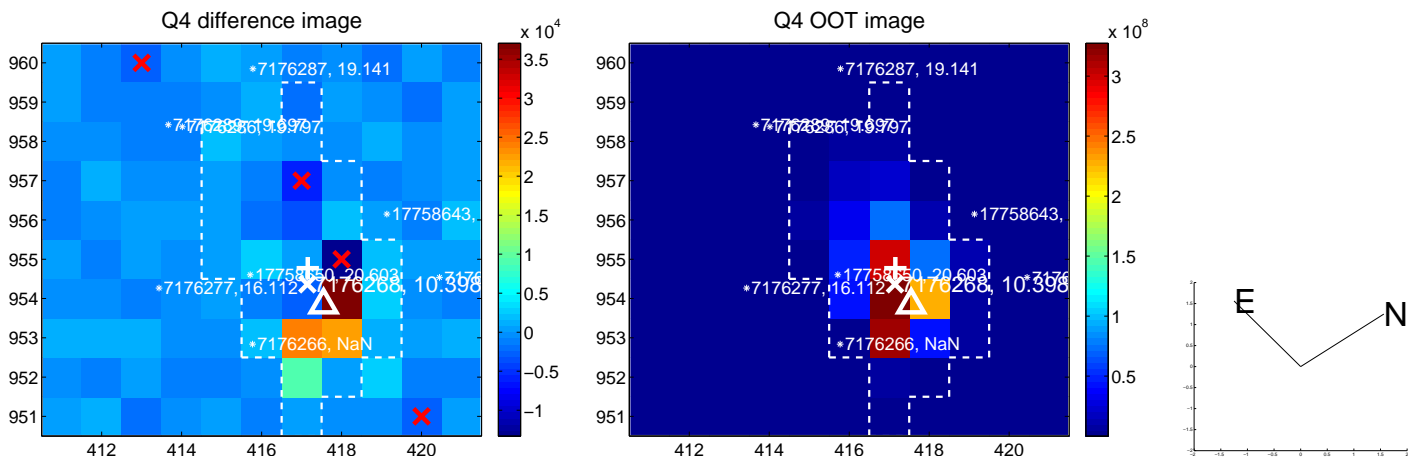
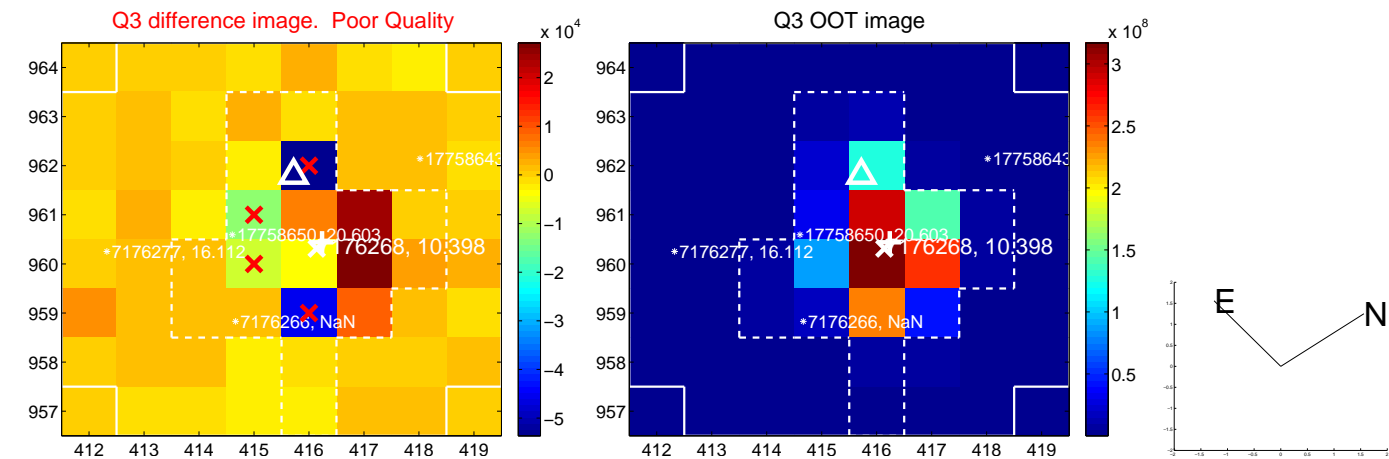
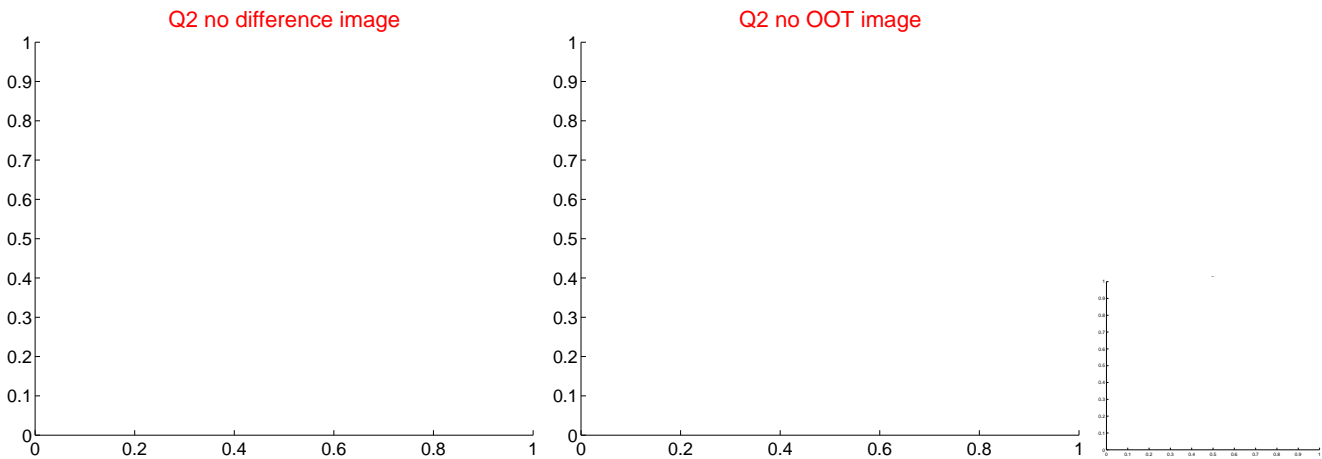
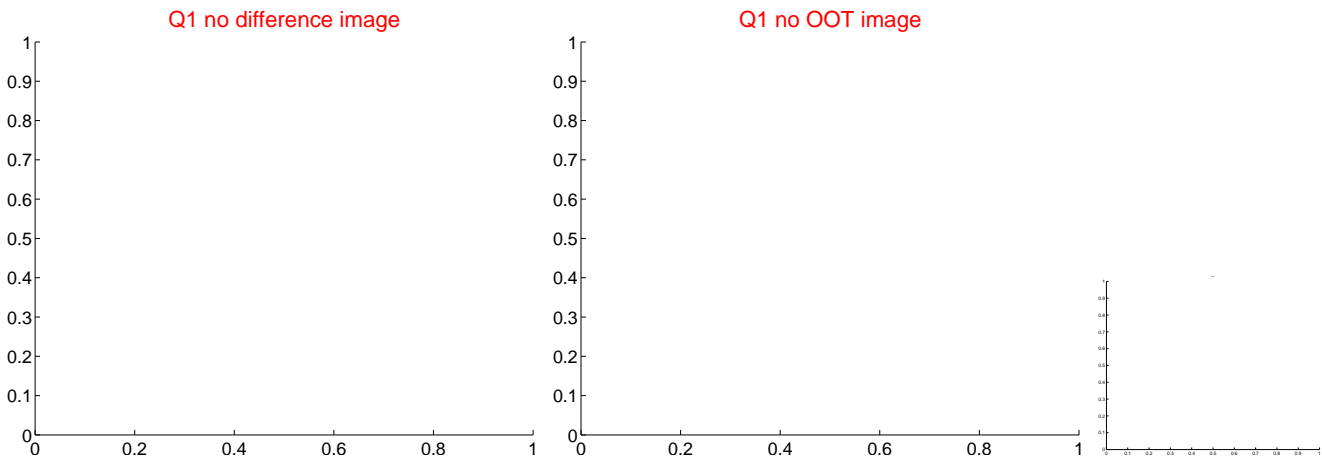
The direct PRF centroid is offset from the target star catalog position by about 1.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.725 ± 0.927	1.86	-1.721 ± 0.903	-0.107 ± 0.739
PRF-fit source offset from KIC position	1.937 ± 0.968	2.00	-1.930 ± 1.008	0.163 ± 0.724
photometric centroid source offset	0.78 ± 0.70	1.13	0.70 ± 0.74	-0.35 ± 0.51

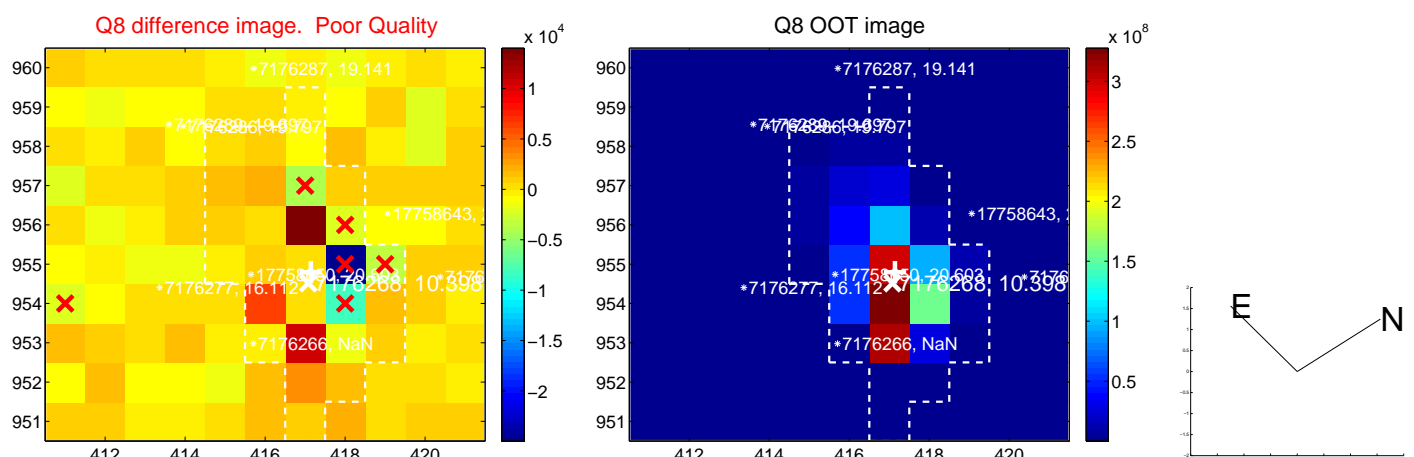
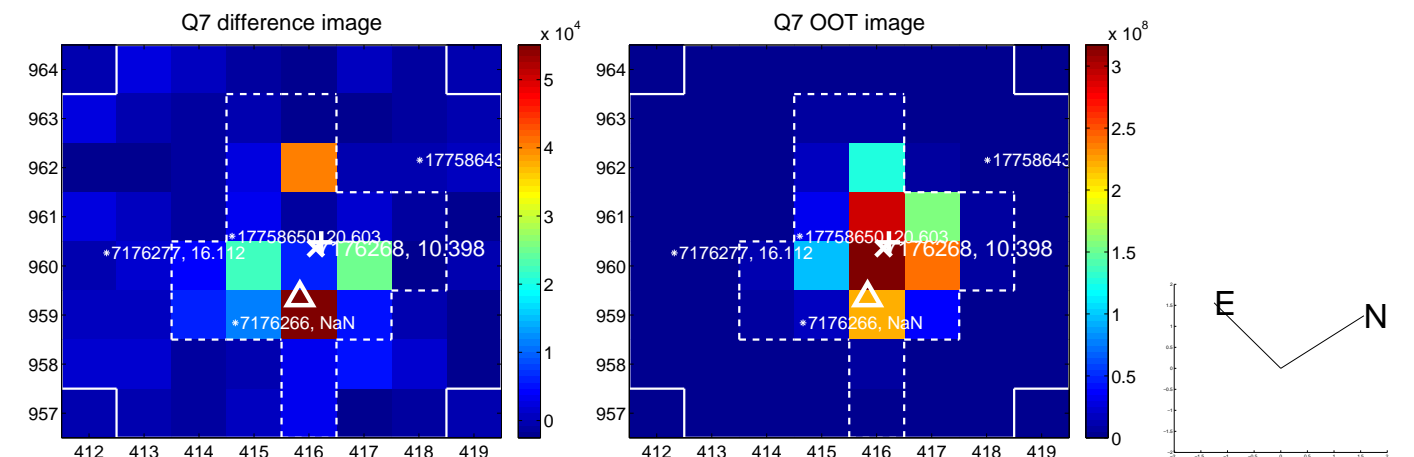
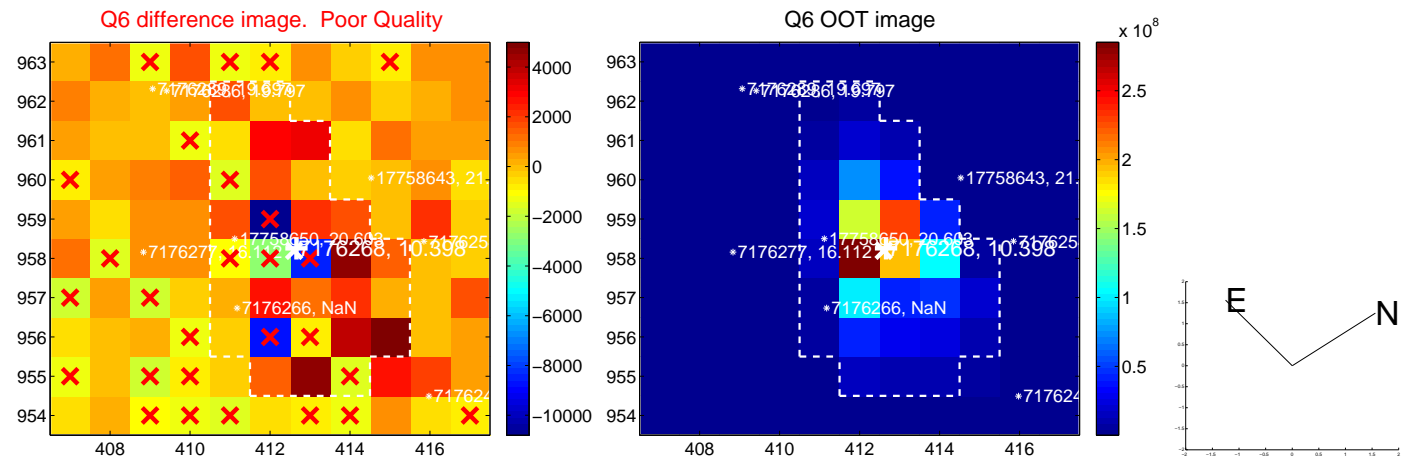
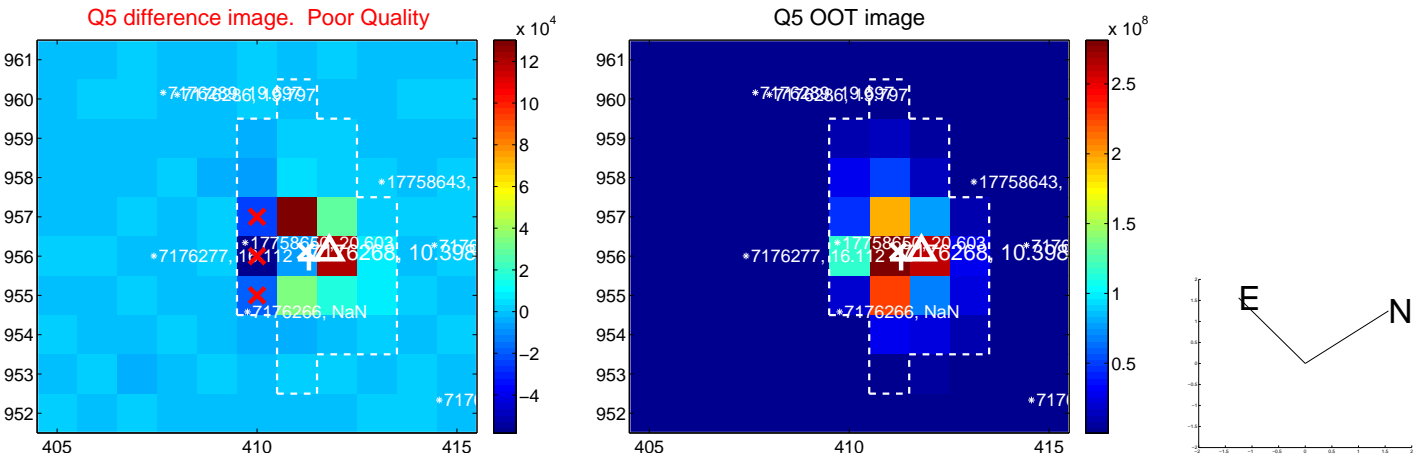


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

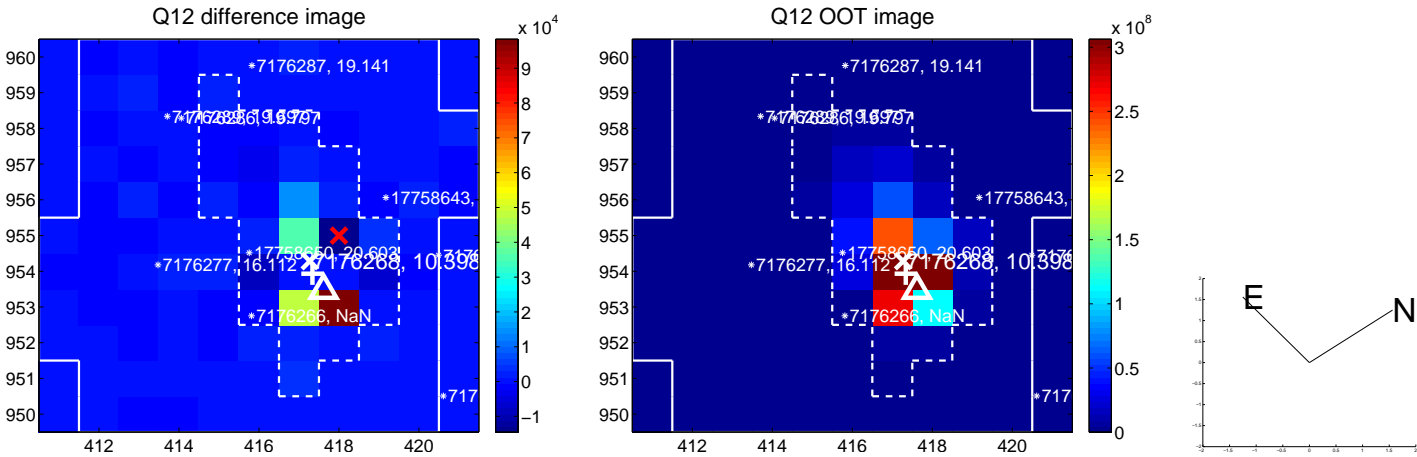
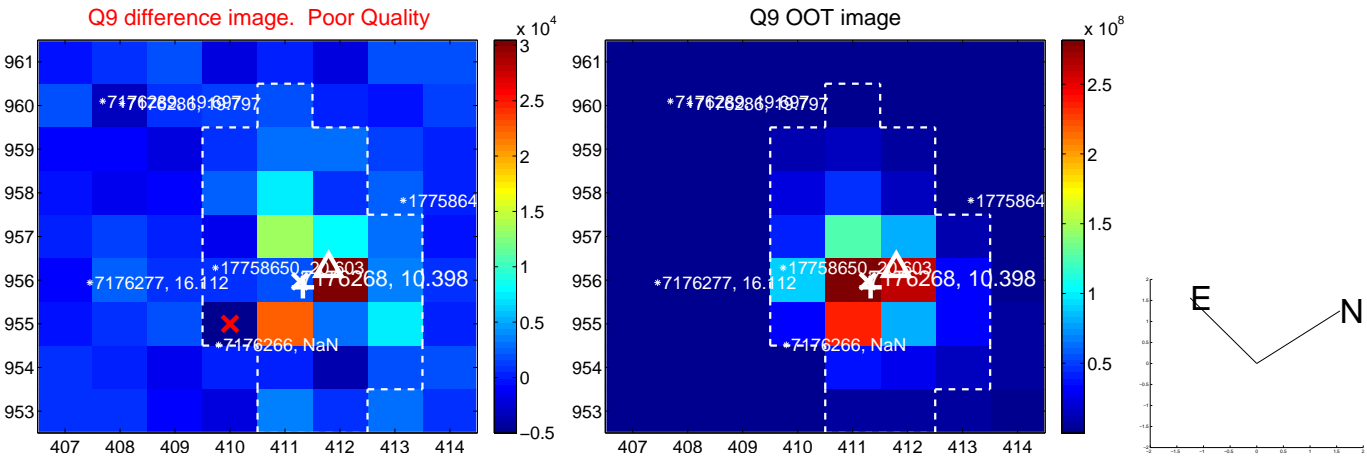
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



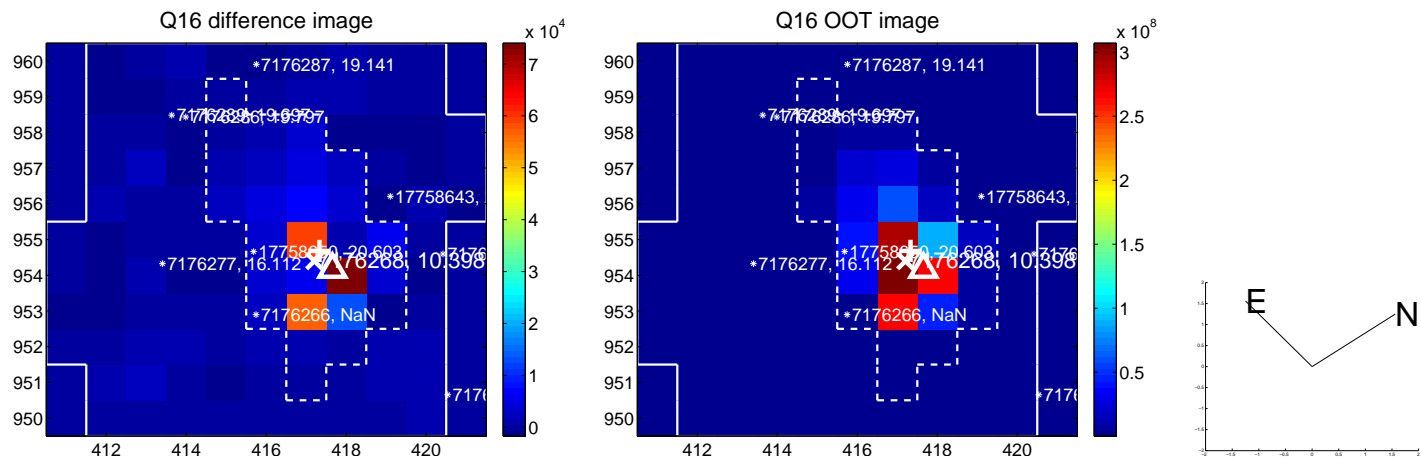
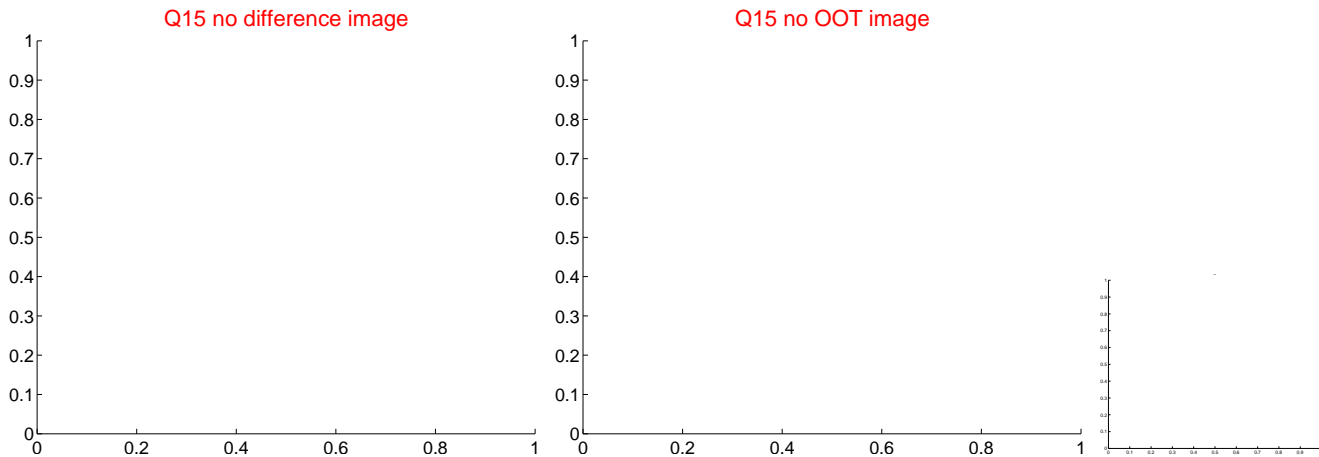
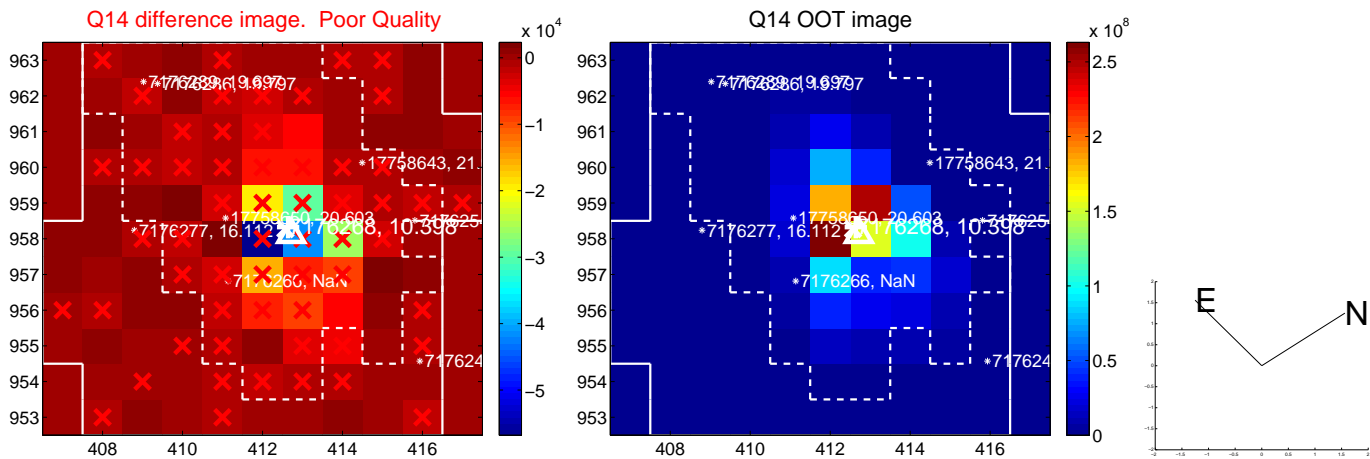
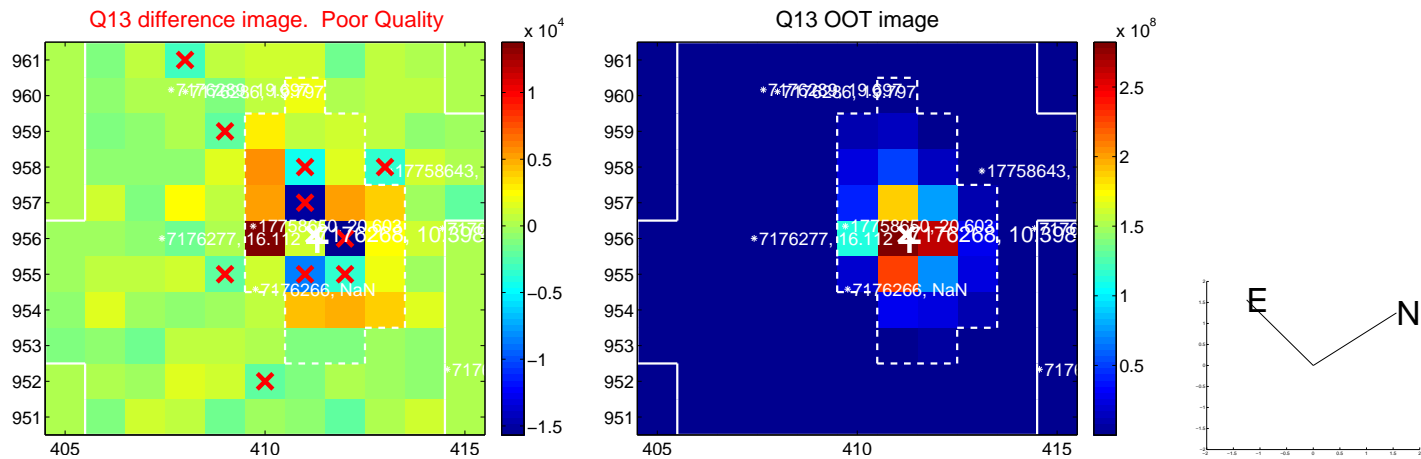
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



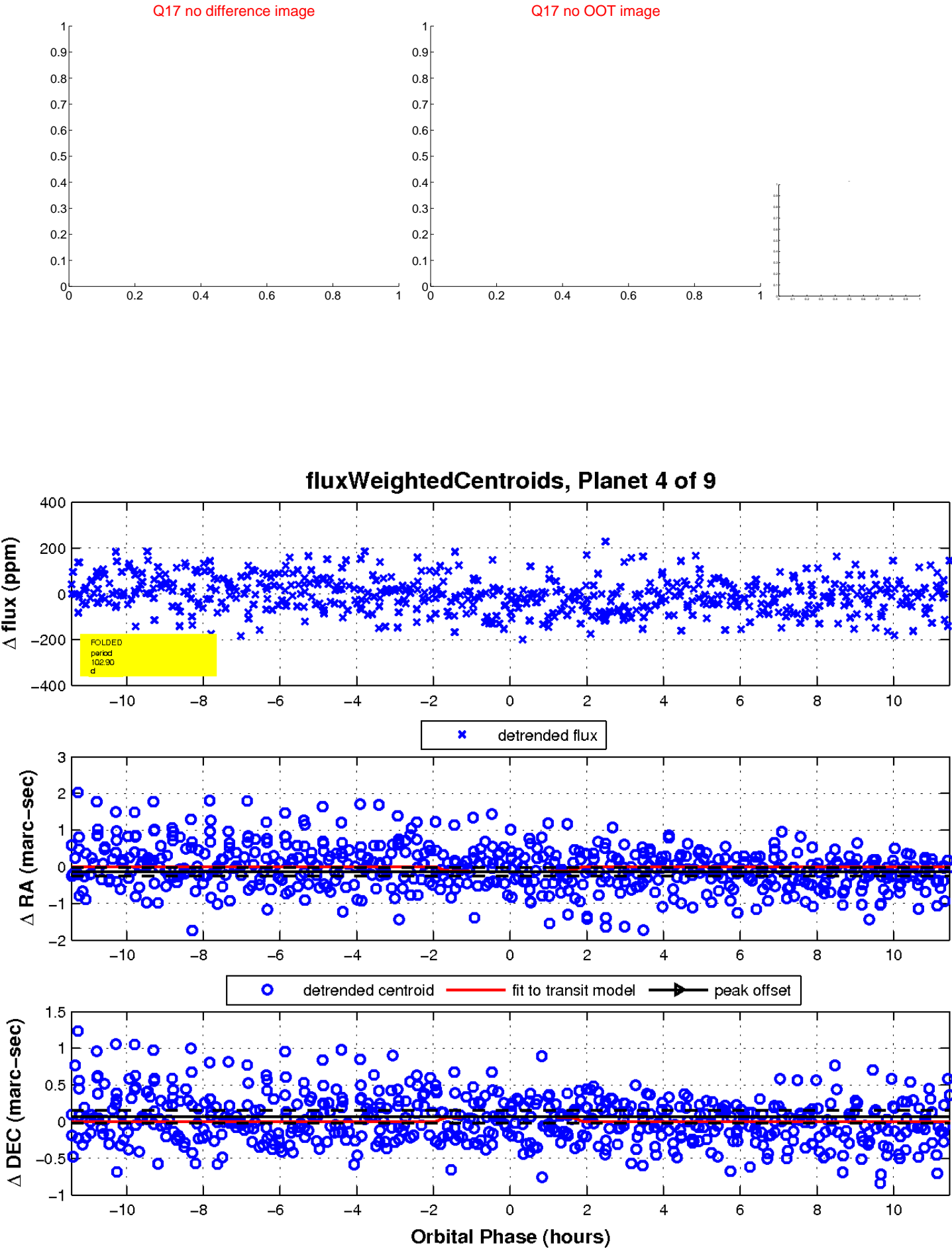
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

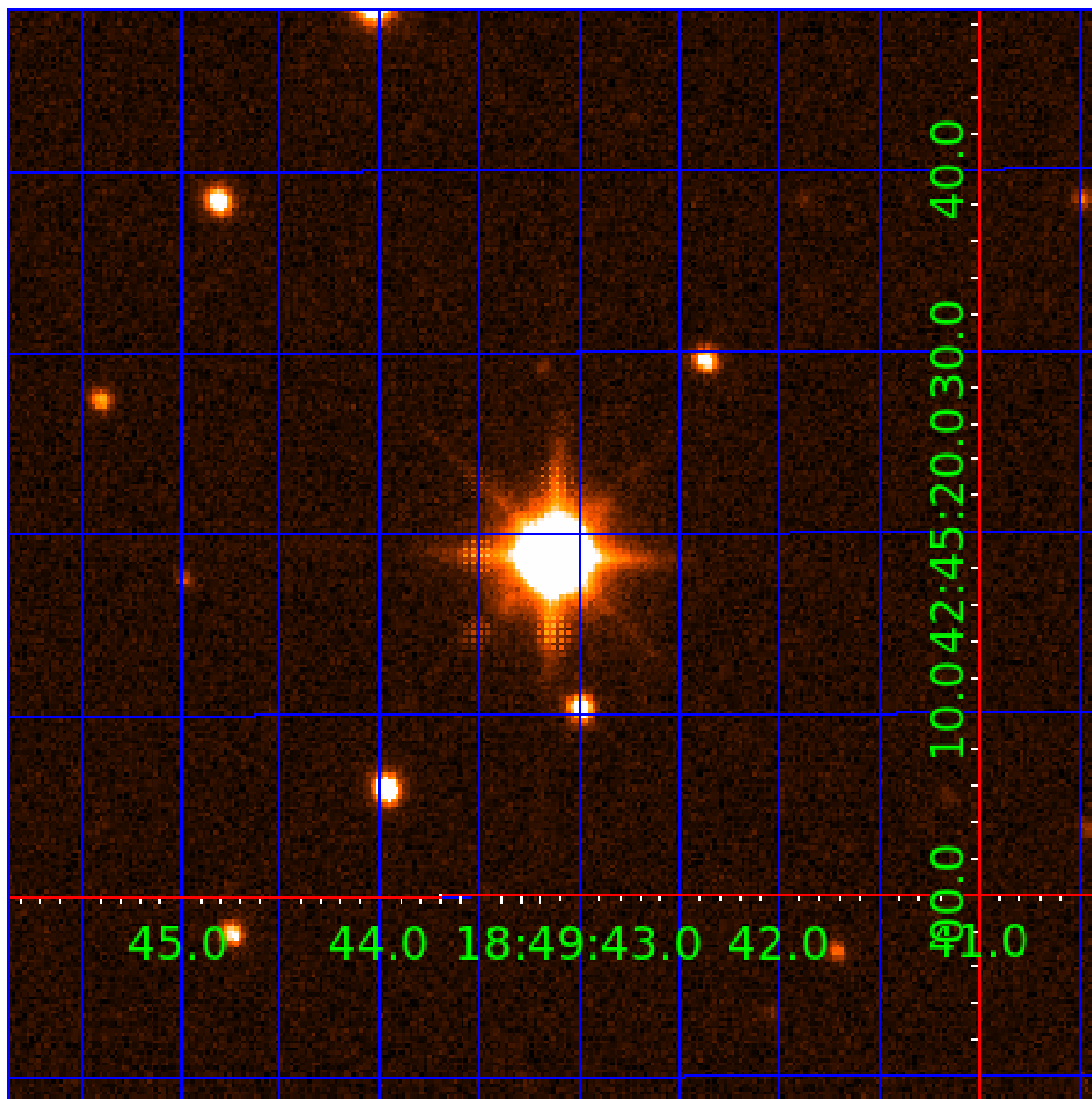


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007176268

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})
007176268-01	OBS	No	0.813753	132.060153	12.8	5.202	10.2	10.8	2.14	6698	0.84	21912.38
007176268-02	OBS	No	51.204386	153.350435	106.5	3.823	12.4	4.7	2.14	6698	2.52	87.55
007176268-03	OBS	No	79.682941	165.313349	234.5	3.218	11.6	9.4	2.14	6698	3.77	48.55
007176268-04	OBS	No	102.901731	181.369342	163.1	3.825	12.8	8.5	2.14	6698	3.13	34.52
007176268-05	OBS	No	77.880572	171.840913	124.3	8.625	11.2	5.9	2.14	6698	2.76	50.05
007176268-06	OBS	No	174.110248	213.867569	311.3	7.376	11.3	9.7	2.14	6698	7.27	17.12
007176268-07	OBS	No	79.596048	135.056846	103.3	5.051	9.8	4.1	2.14	6698	2.48	48.62
007176268-08	OBS	No	518.428552	304.103724	317.1	7.383	8.8	9.1	2.14	6698	4.44	4.00
007176268-09	OBS	No	58.906583	179.024332	178.2	3.792	7.3	7.4	2.14	6698	4.51	72.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007176268-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007176268-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007176268-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007176268-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007176268-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_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.

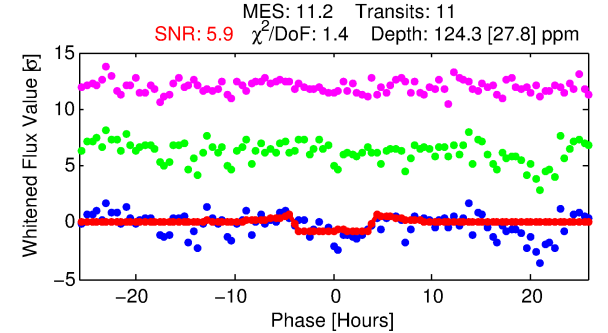
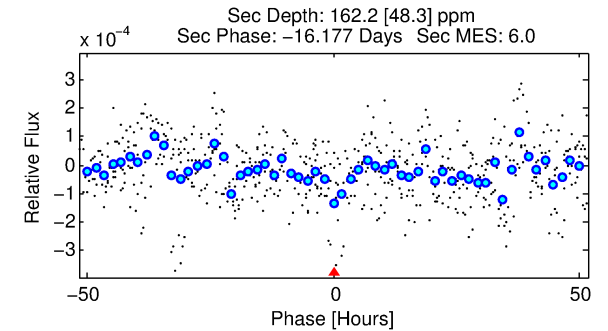
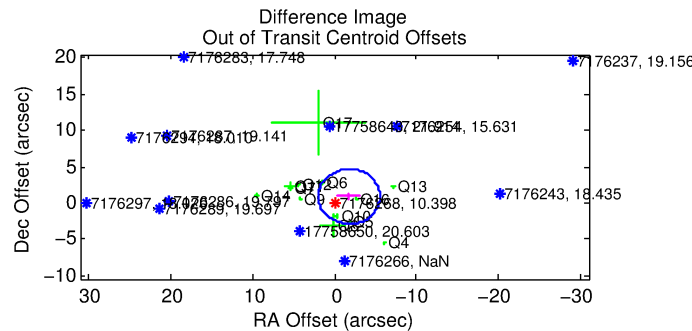
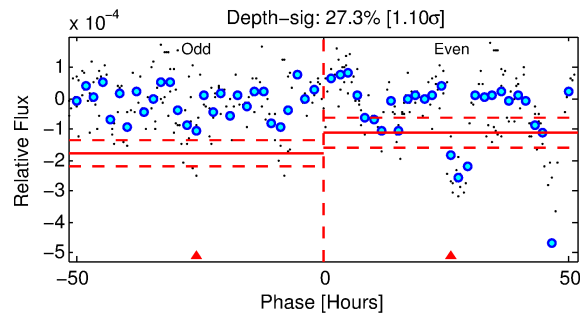
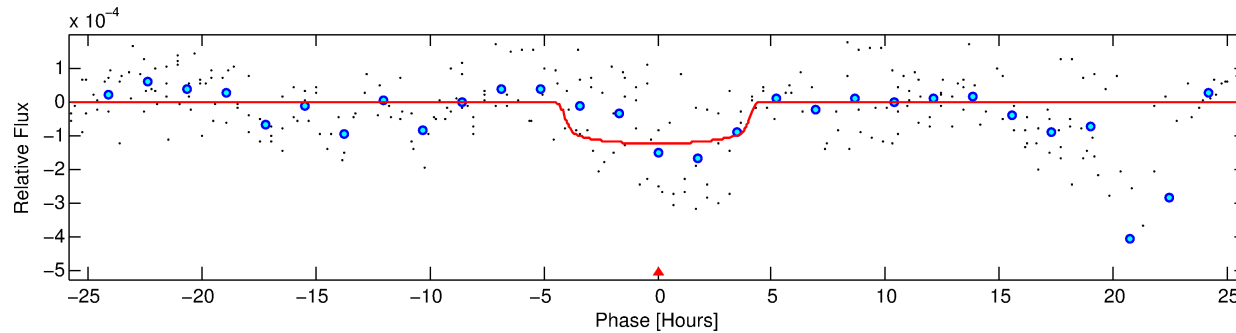
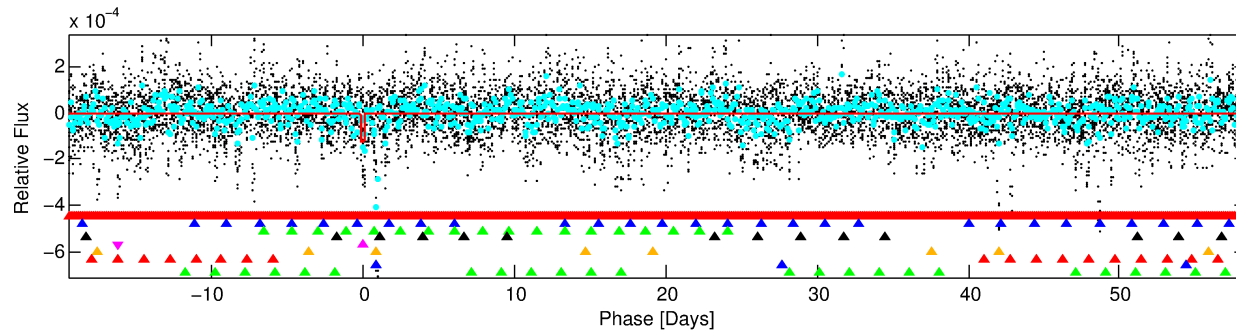
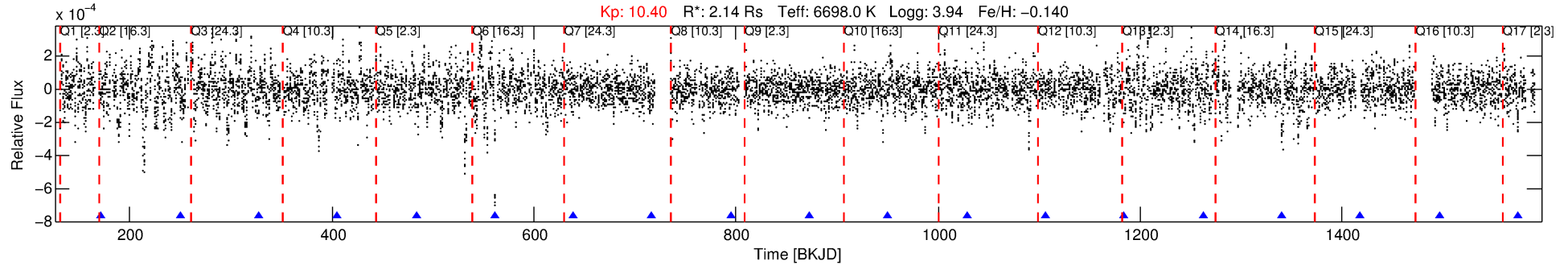
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007176268-05

No Significant Match Found

DV One-Page Summary

KIC: 7176268 Candidate: 5 of 9 Period: 77.881 d



DV Fit Results:

Period = 77.88057 [0.00187] d
Epoch = 171.8409 [0.0183] BKJD
Rp/R* = 0.0118 [0.0037]
a/R* = 33.14 [54.45]
b = 0.89 [0.38]
Seff = 50.05 [21.49]
Teq = 678 [73] K
Rp = 2.76 [1.17] Re
a = 0.4058 [0.1077] AU
Ag = 1932.51 [1567.34] [1.23 σ]
Teffp = 6953 [1226] K [5.11 σ]

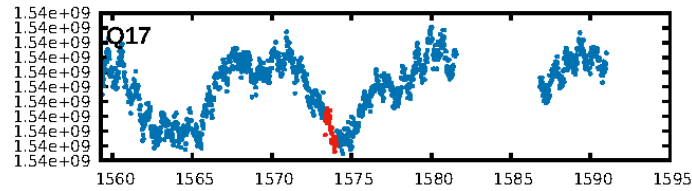
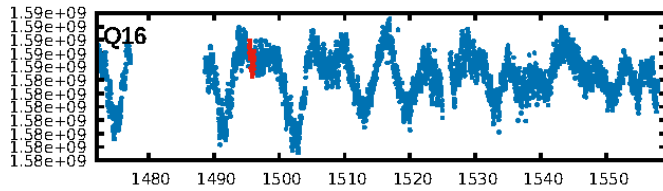
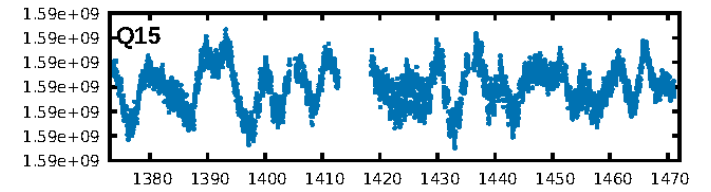
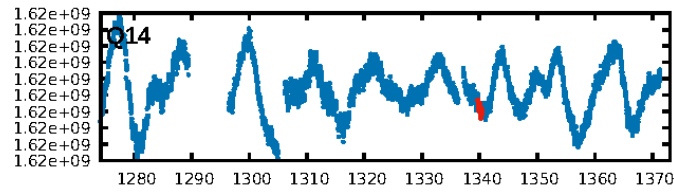
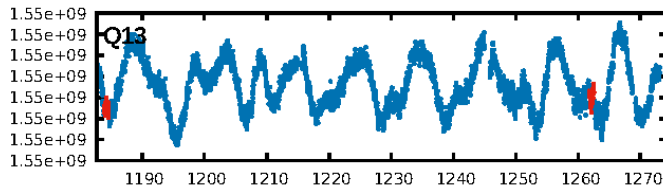
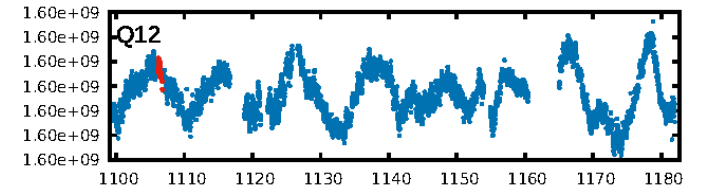
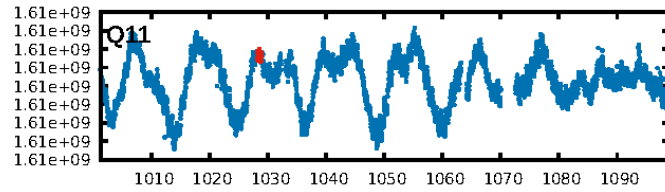
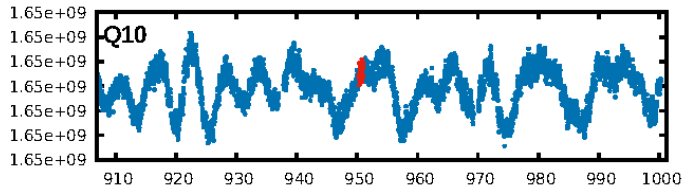
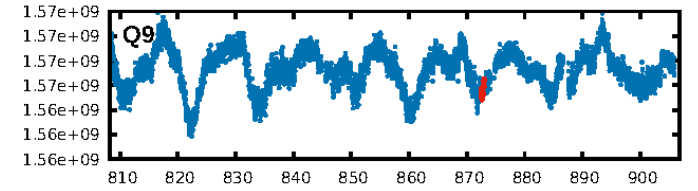
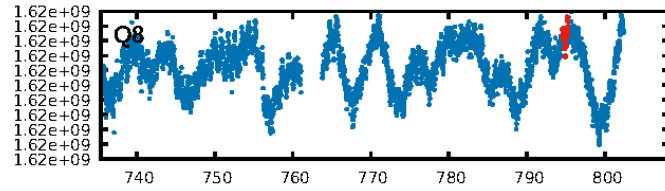
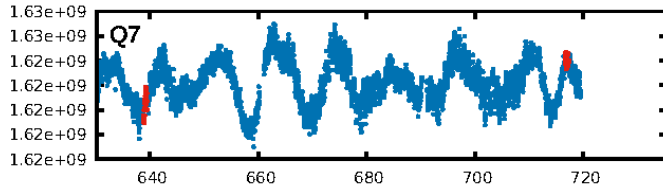
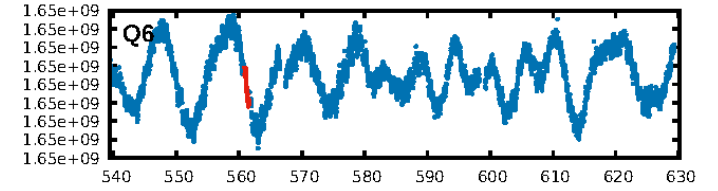
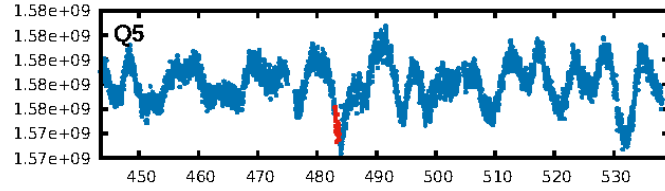
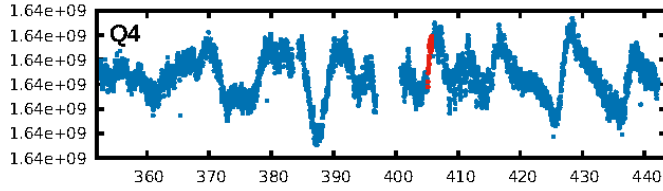
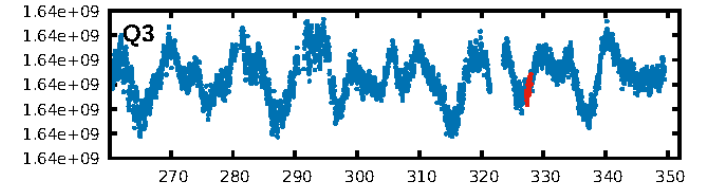
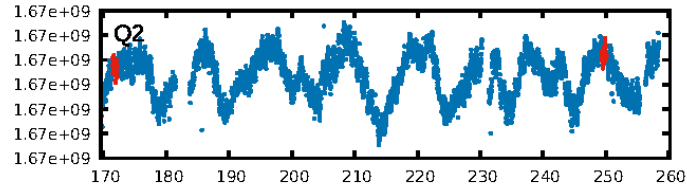
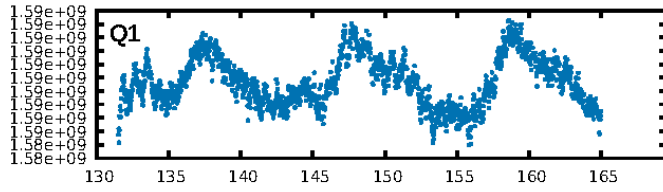
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [48.33 σ]
LongPeriod-sig: 100.0% [4.12 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.03e-16
RollingBand-fgt: 1.00 [10/10]
GhostDiagnostic-chr: 0.3247
Centroid-sig: 1.0%
Centroid-so: 1.211 arcsec [1.76 σ]
OotOffset-rm: 1.952 arcsec [1.55 σ]
KicOffset-rm: 2.419 arcsec [1.98 σ]
OotOffset-st: 3/2/4/4 [13]
KicOffset-st: 3/2/4/4 [13]
DiffImageQuality-fgm: 0.15 [2/13]
DiffImageOverlap-fno: 0.00 [0/15]

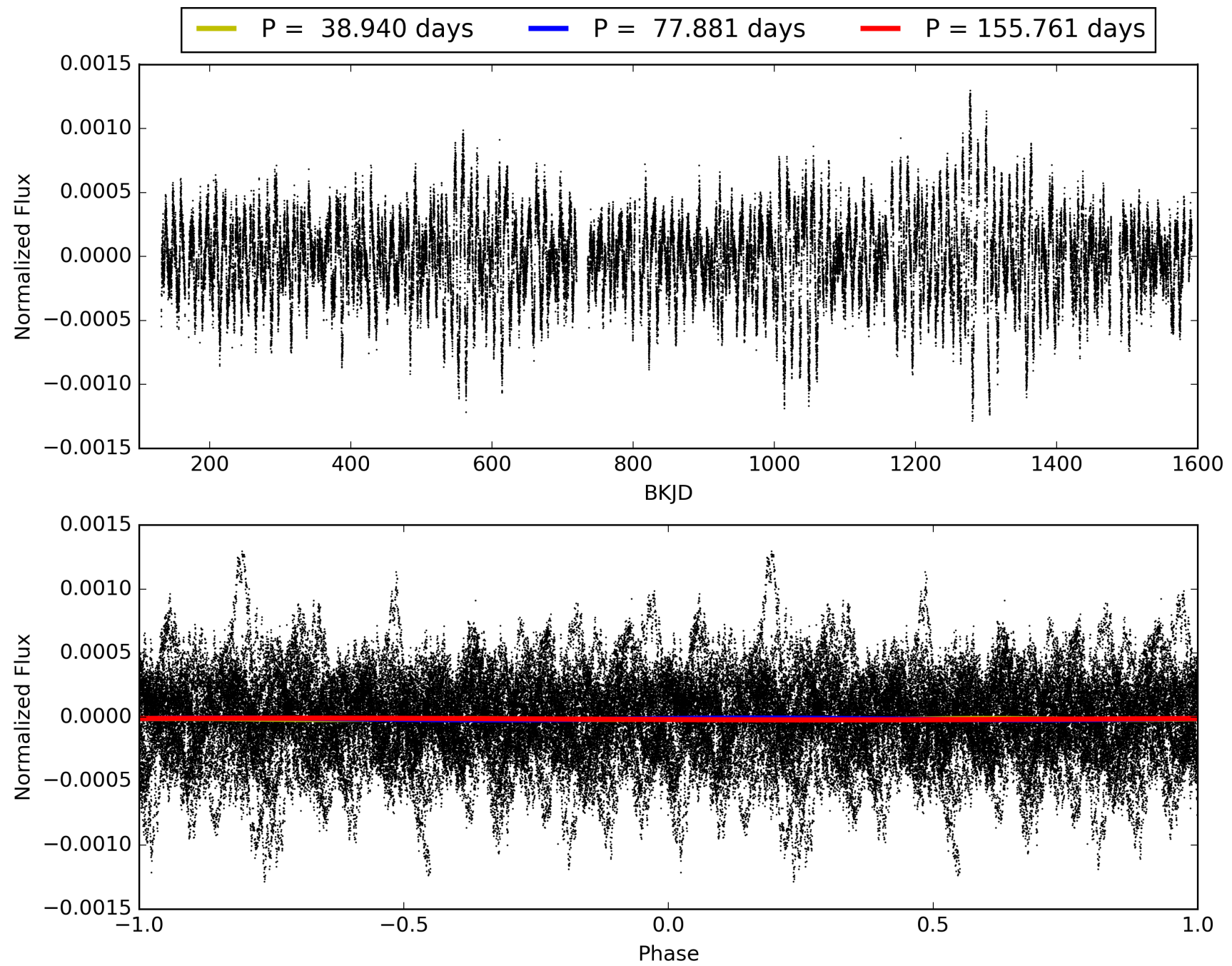
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 01:50:02 Z

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

TCE 007176268-05, PDC Light Curves

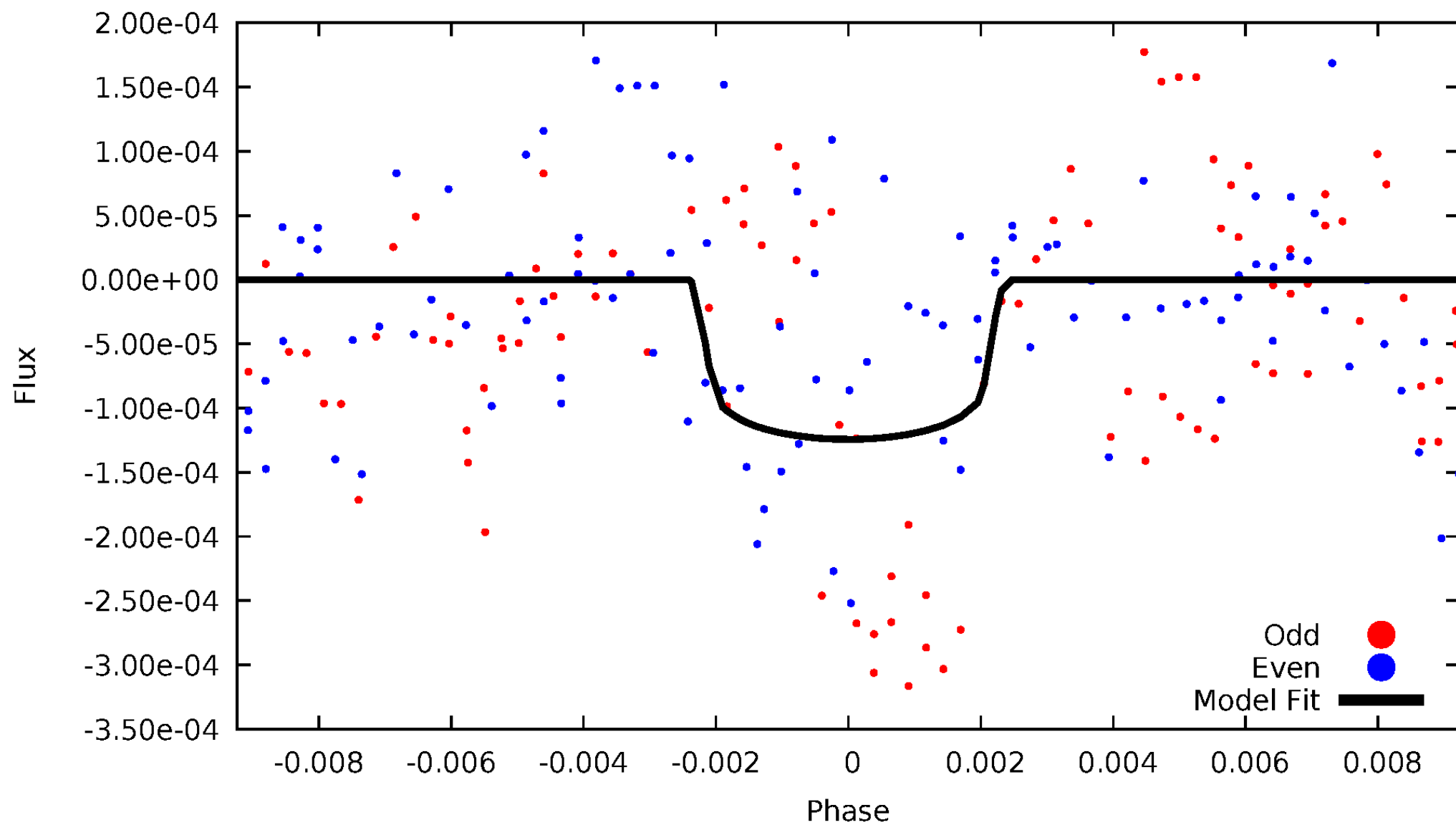


TCE 007176268-05



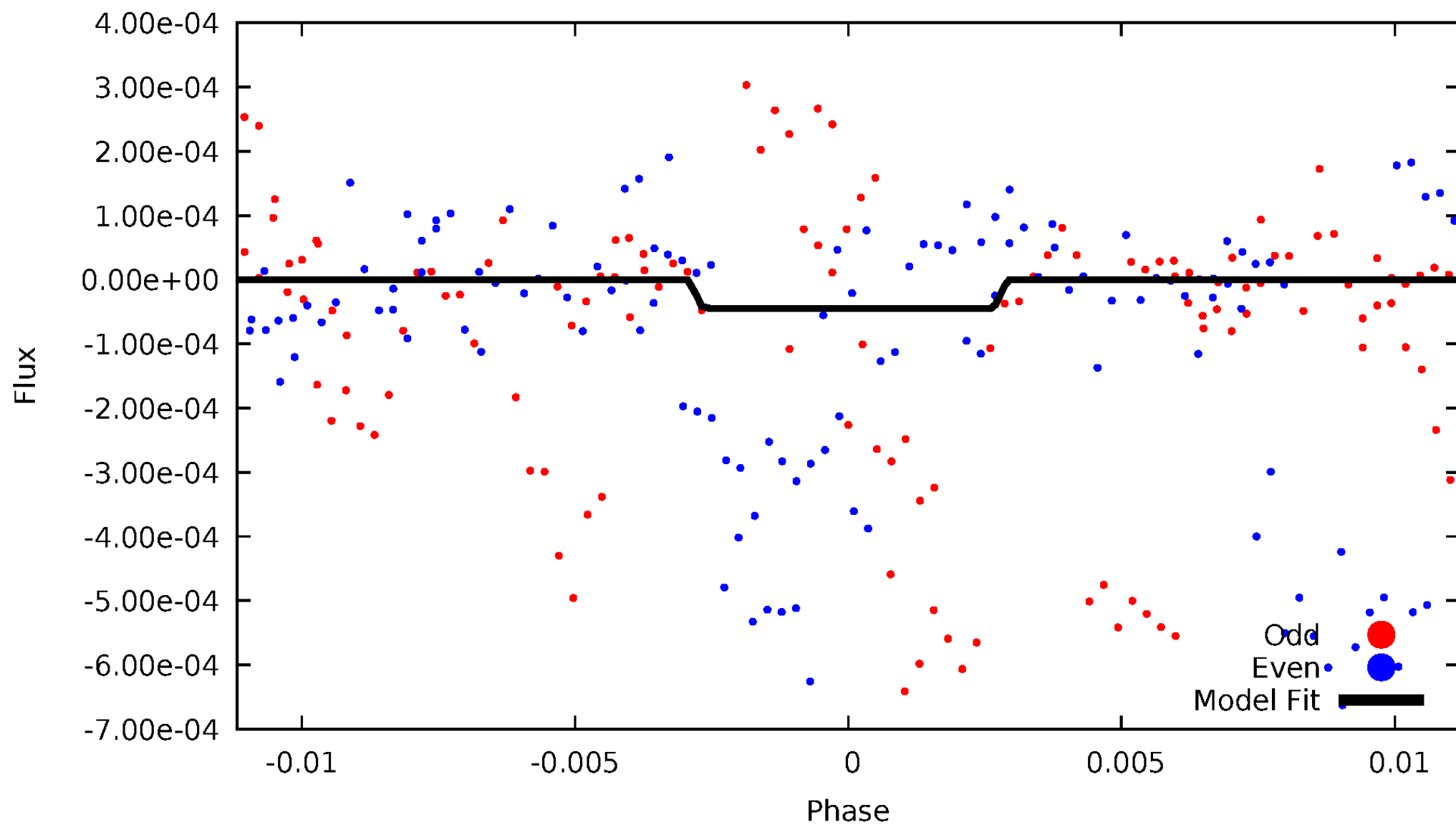
DV Odd/Even

TCE 007176268-05



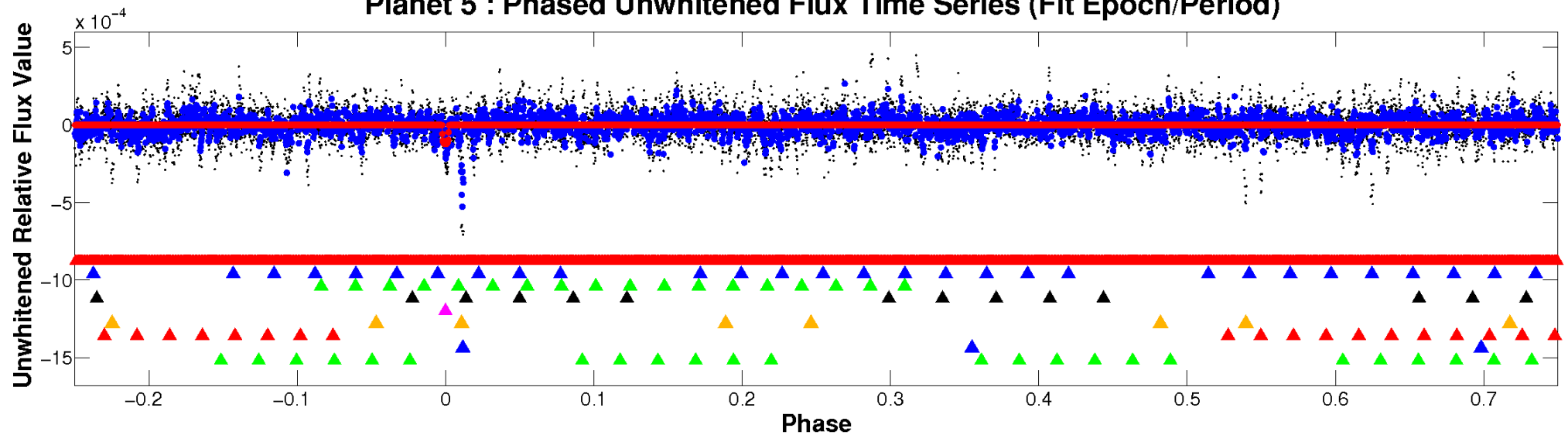
ALT Odd/Even

TCE 007176268-05

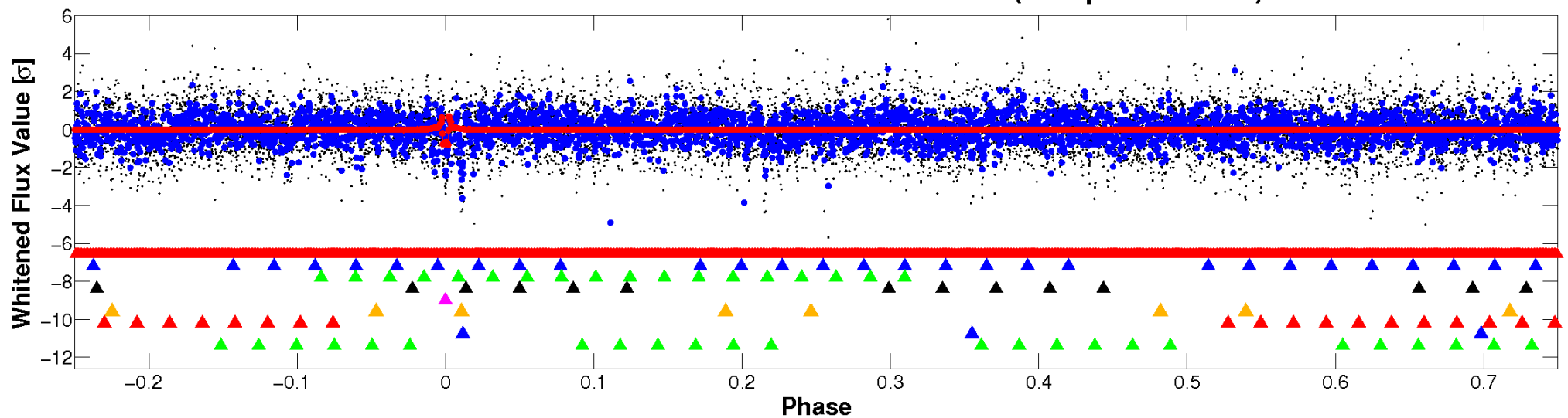


Non-Whitened Vs. Whitened Light Curve

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

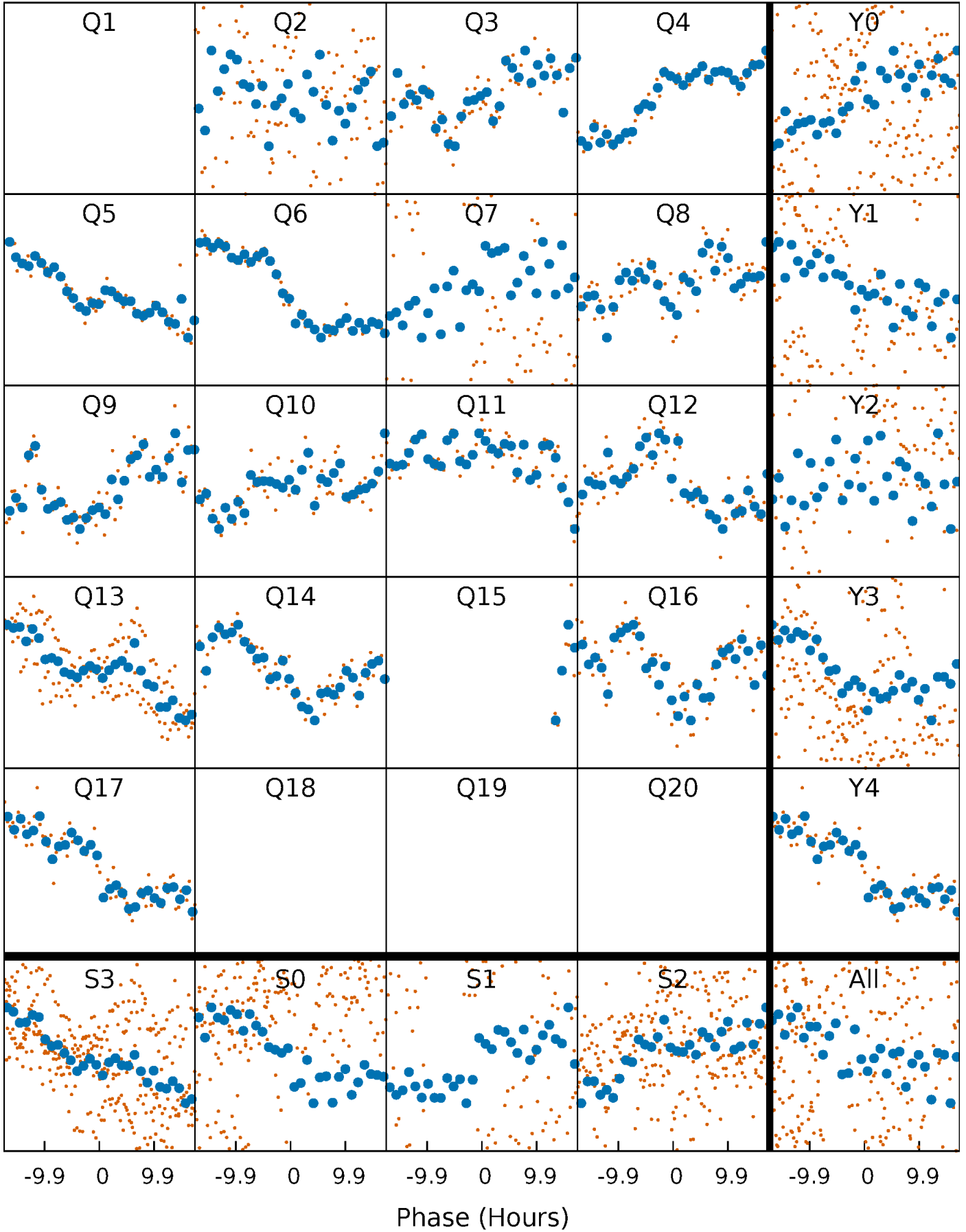


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



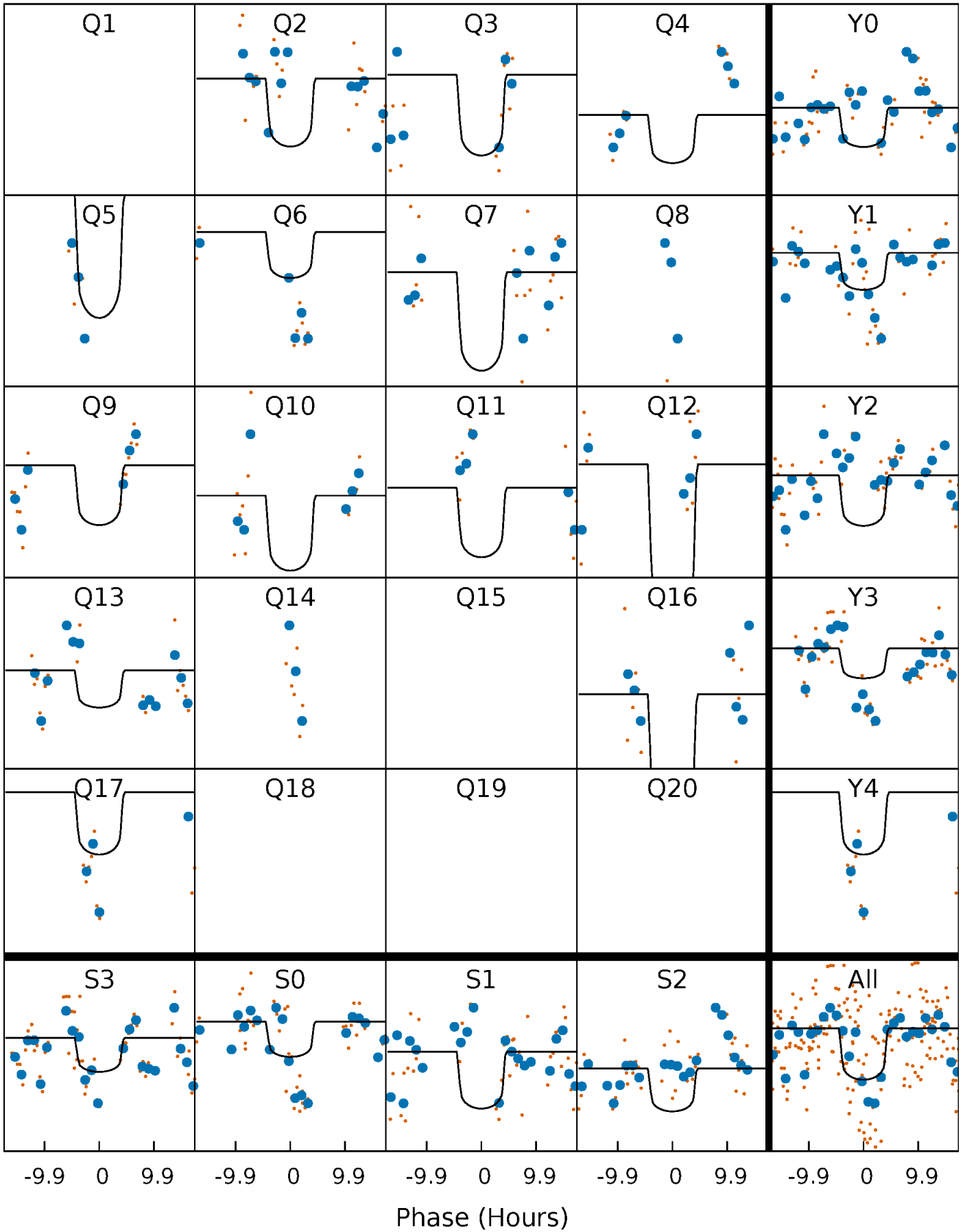
PDC Quarter-Phased Transit Curves

TCE 007176268-05 P= 77.880572 Days $T_0=171.840913$ (BKJD)



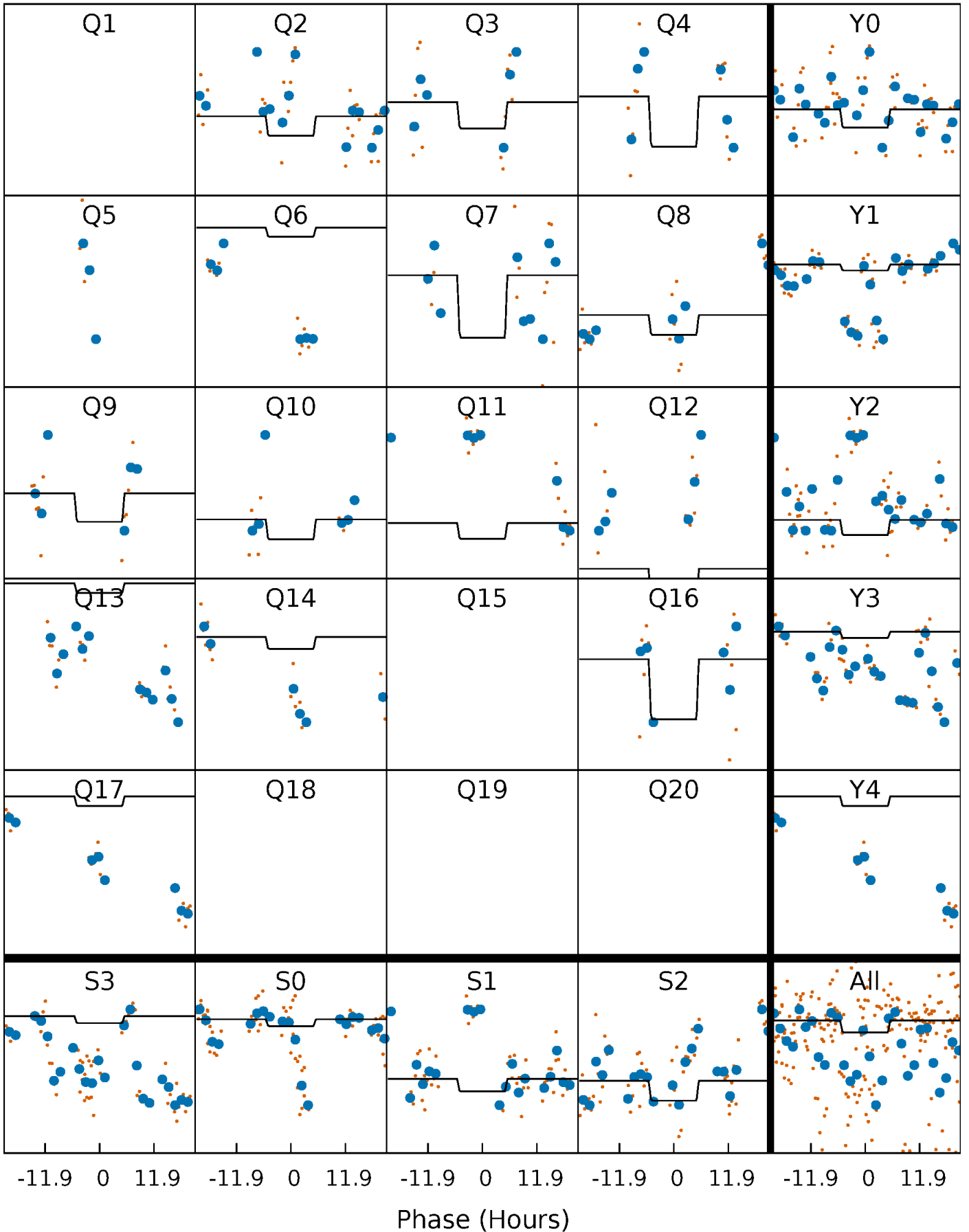
DV Quarter-Phased Transit Curves

TCE 007176268-05 $P = 77.880572$ Days $T_0 = 171.840913$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

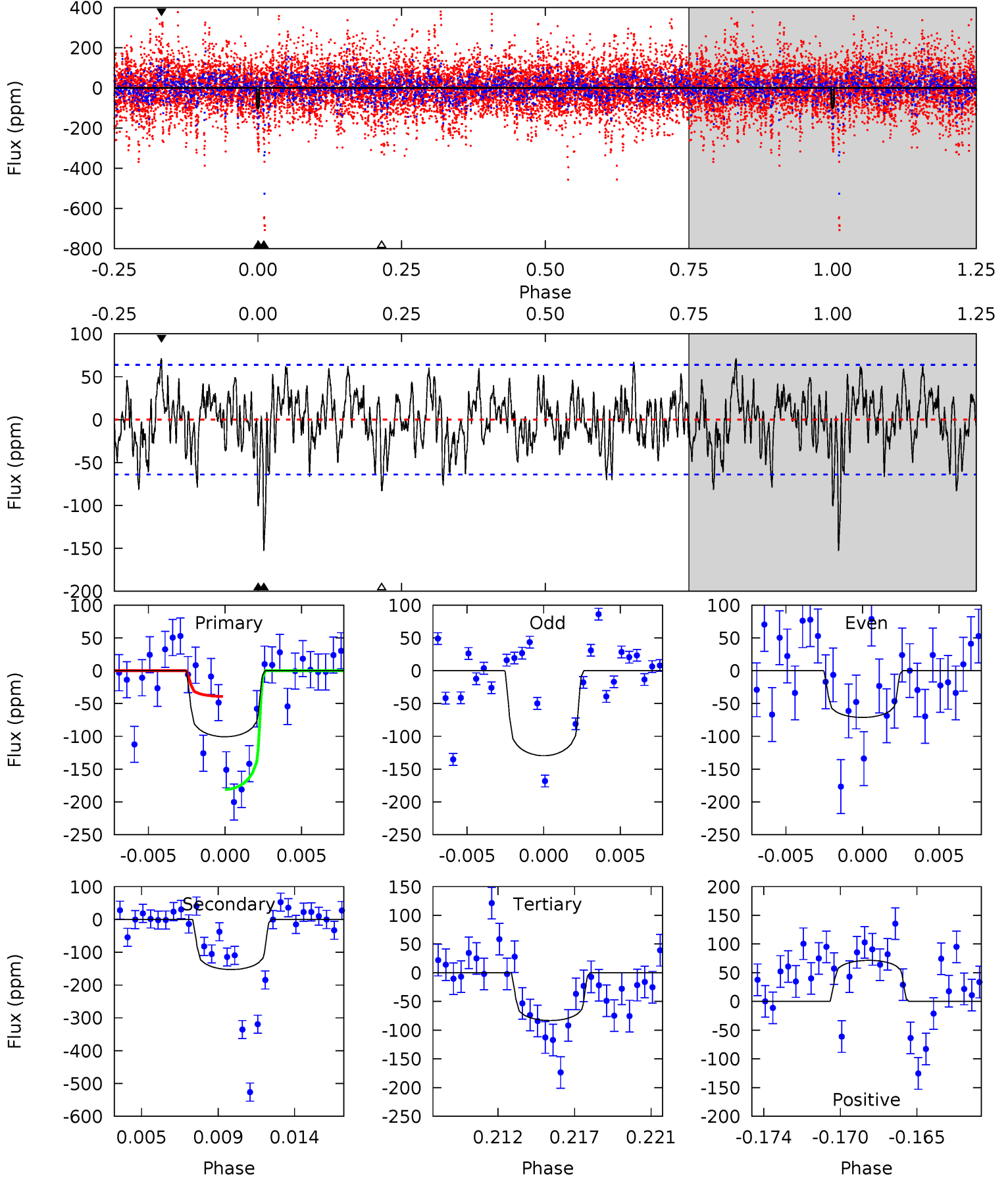
TCE 007176268-05 $P = 77.882541$ Days $T_0 = 171.780256$ (BKJD)



DV Model-Shift Uniqueness Test

007176268-05, P = 77.880572 Days, E = 93.960341 Days

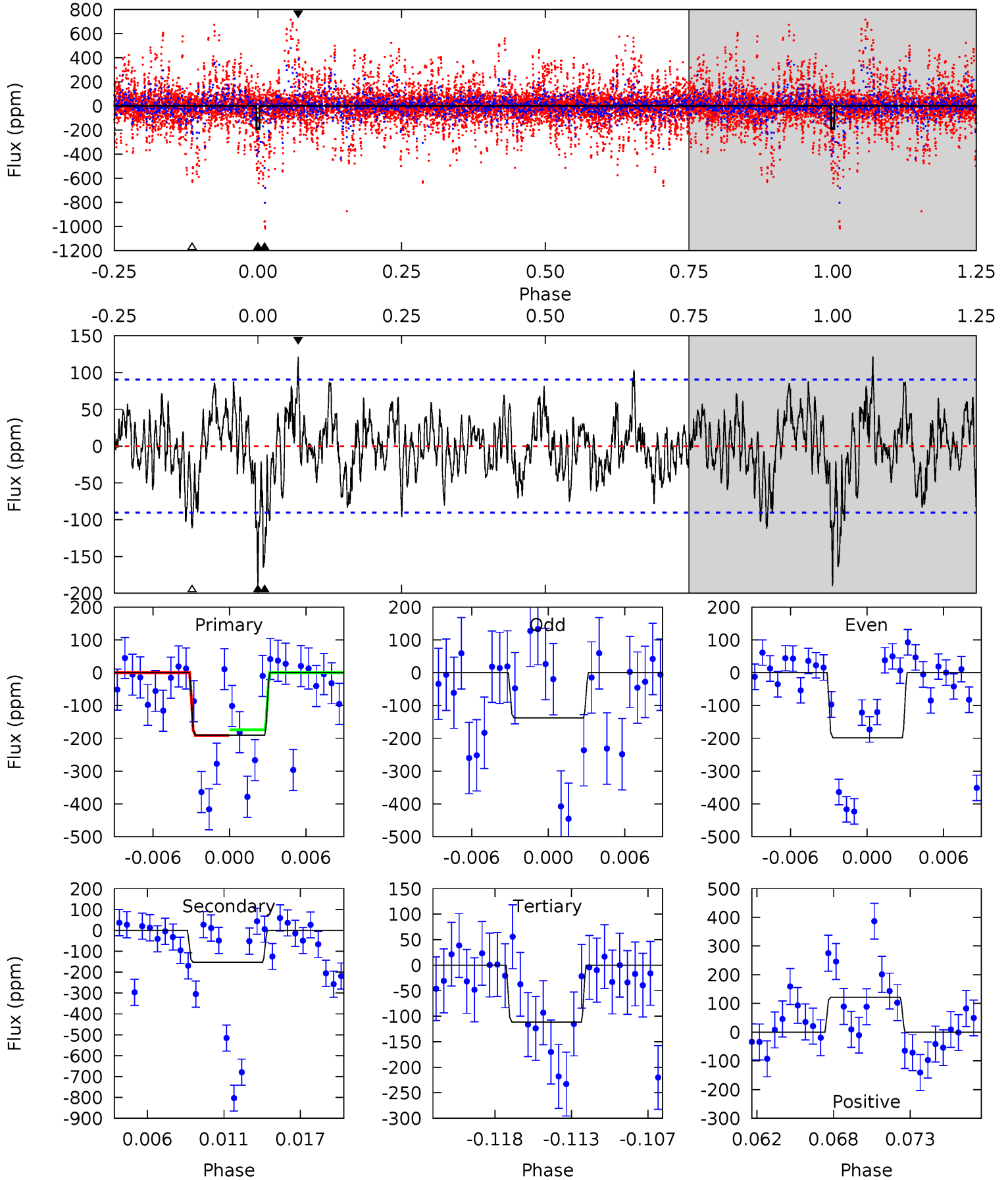
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.16	12.4	6.74	5.80	5.17	2.83	2.17	1.42	2.36	5.63	6.57	2.31	0.62	0.32	5.71



Alt Model-Shift Uniqueness Test

007176268-05, P = 77.882541 Days, E = 93.897715 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	8.70	6.32	6.91	5.14	2.77	1.99	4.47	3.88	2.38	1.79	1.55	1.49	0.39	0.48



Stellar Parameters For KIC 007176268

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6698^{+151}_{-184}	$3.945^{+0.240}_{-0.129}$	$-0.140^{+0.300}_{-0.250}$	$2.138^{+0.501}_{-0.613}$	$1.469^{+0.186}_{-0.256}$	$0.212^{+0.314}_{-0.082}$
	+2%/-3%	+6%/-3%	+214%/-179%	+23%/-29%	+13%/-17%	+148%/-39%
Source	PHO1	FLK73	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 007176268-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-153 ± 12	$2.68^{+0.92}_{-0.93}$	936^{+60}_{-73}	6880^{+1717}_{-908}	1958^{+2543}_{-866}
Alt.	-153 ± 18	$1.51^{+0.87}_{-0.75}$	933^{+58}_{-66}	9681^{+8172}_{-2365}	5764^{+18367}_{-3428}

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 $A_{obs} \gg 1.0$

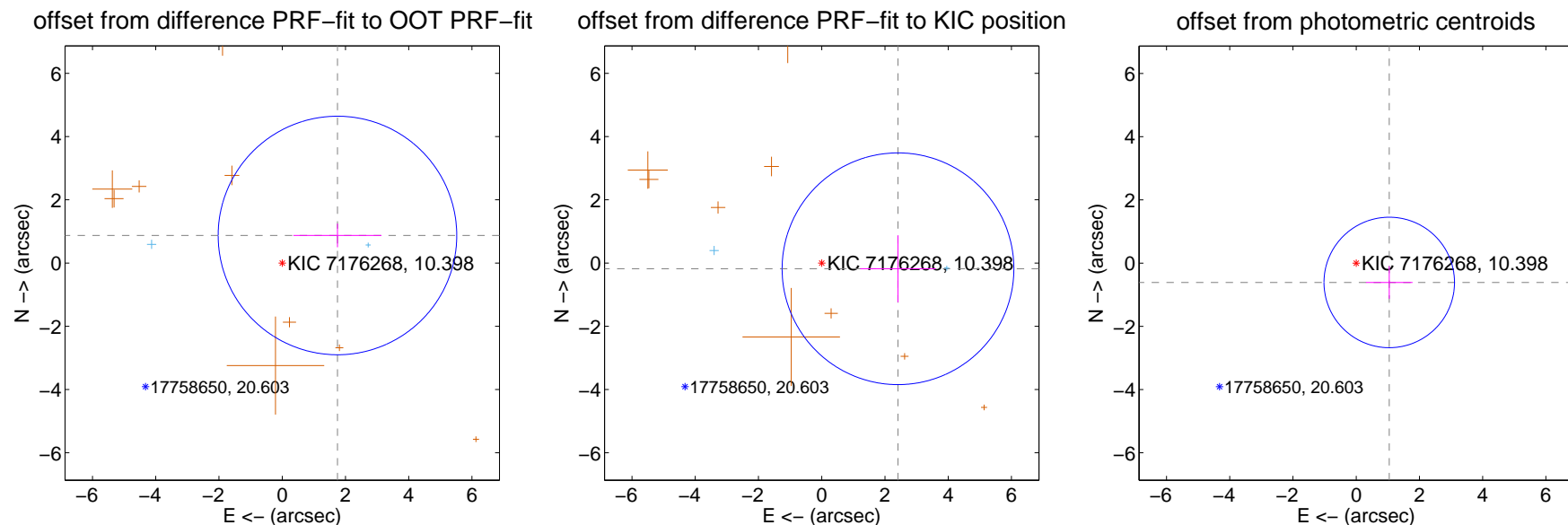
DV Centroid Data

Supplemental centroid analysis for 007176268-05. **Kepler magnitude: 10.40.** Transit SNR 5.94

There are 2 quarters with good PRF difference image offsets

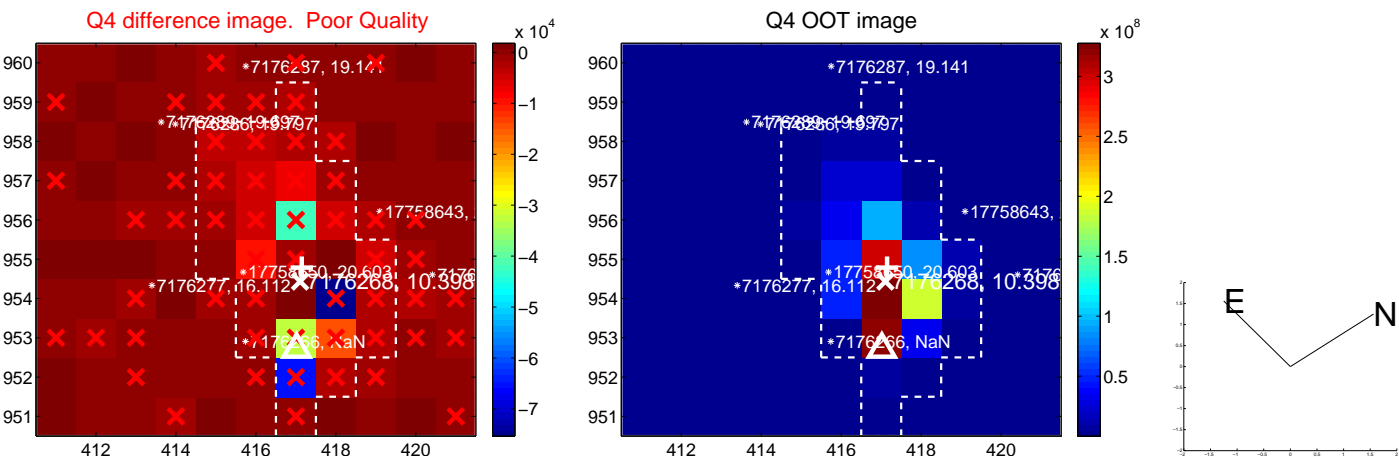
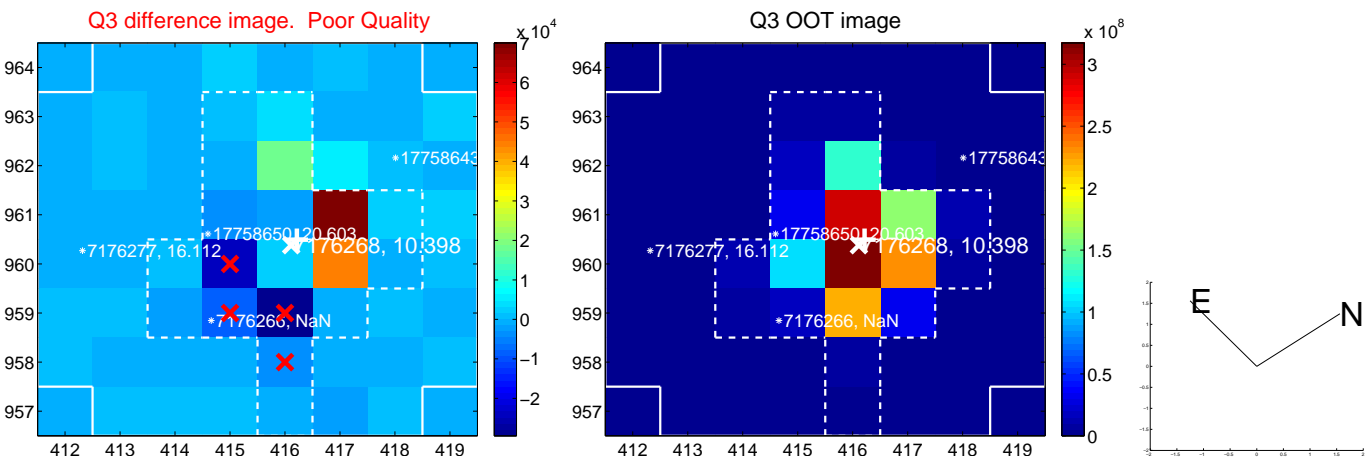
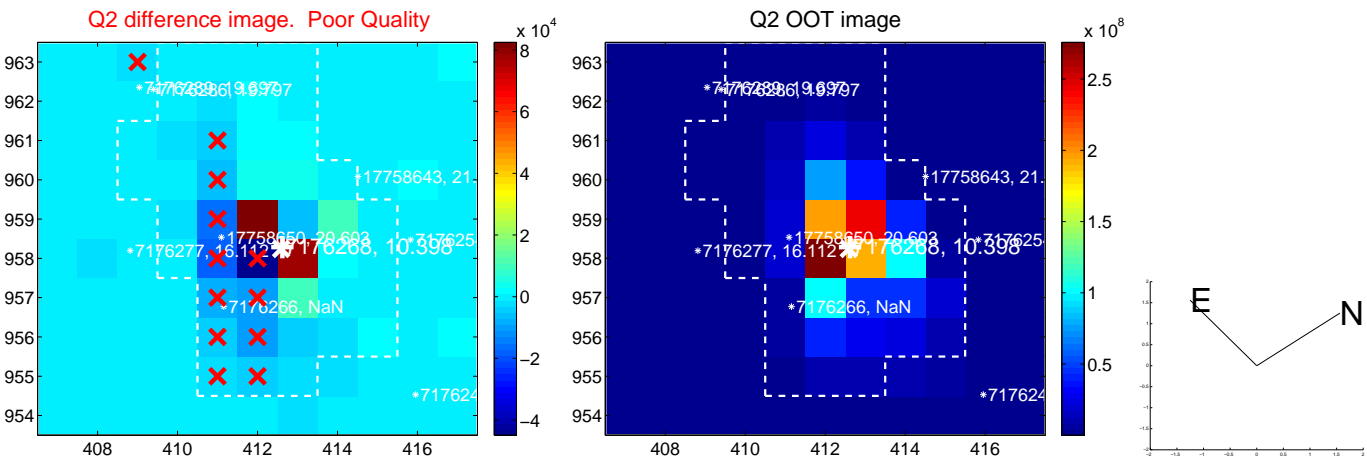
The direct PRF centroid is offset from the target star catalog position by about 0.85 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.952 ± 1.258	1.55	-1.747 ± 1.393	0.872 ± 0.374
PRF-fit source offset from KIC position	2.419 ± 1.222	1.98	-2.412 ± 1.191	-0.181 ± 1.059
photometric centroid source offset	1.21 ± 0.69	1.76	-1.05 ± 0.74	-0.61 ± 0.52

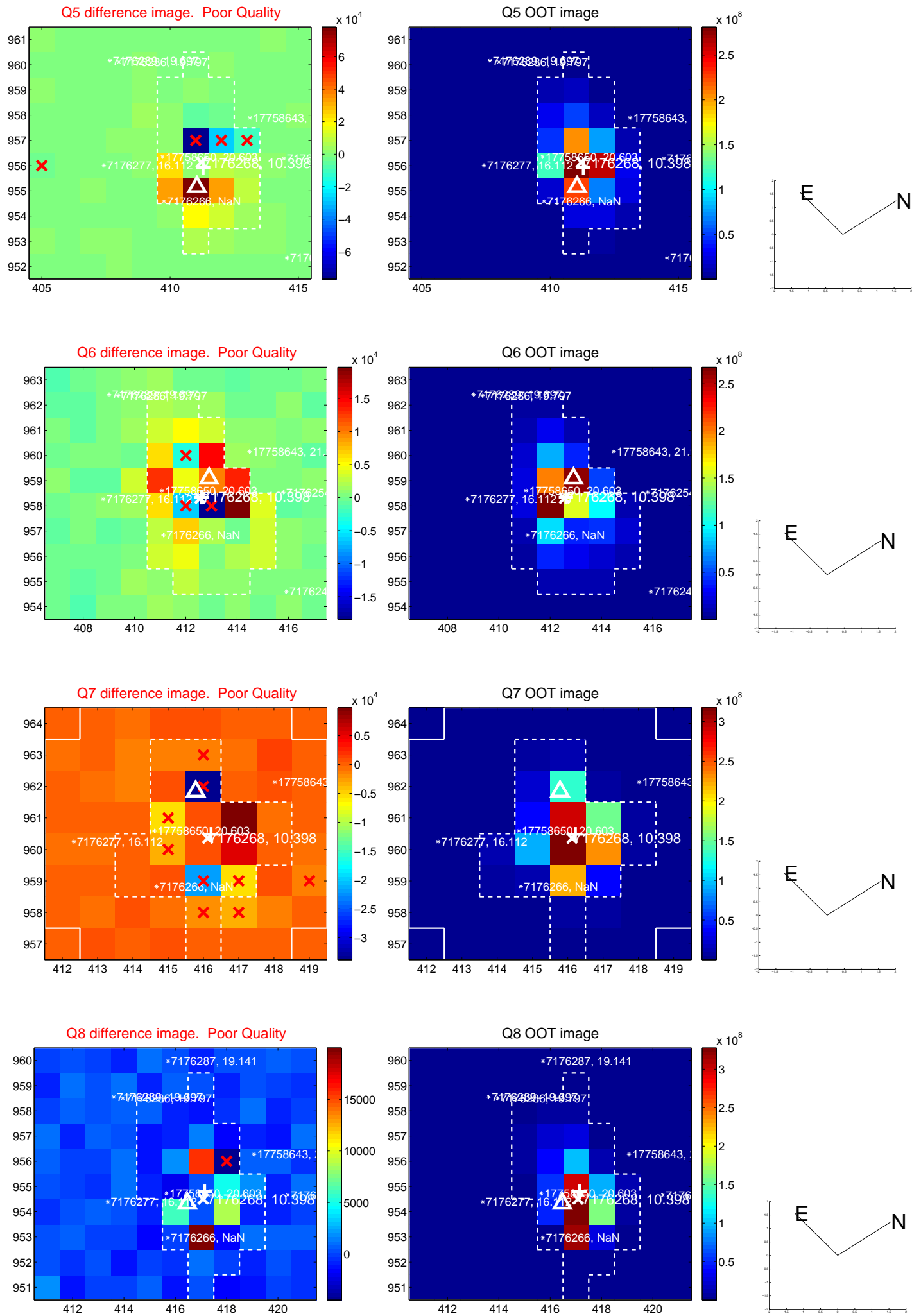


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

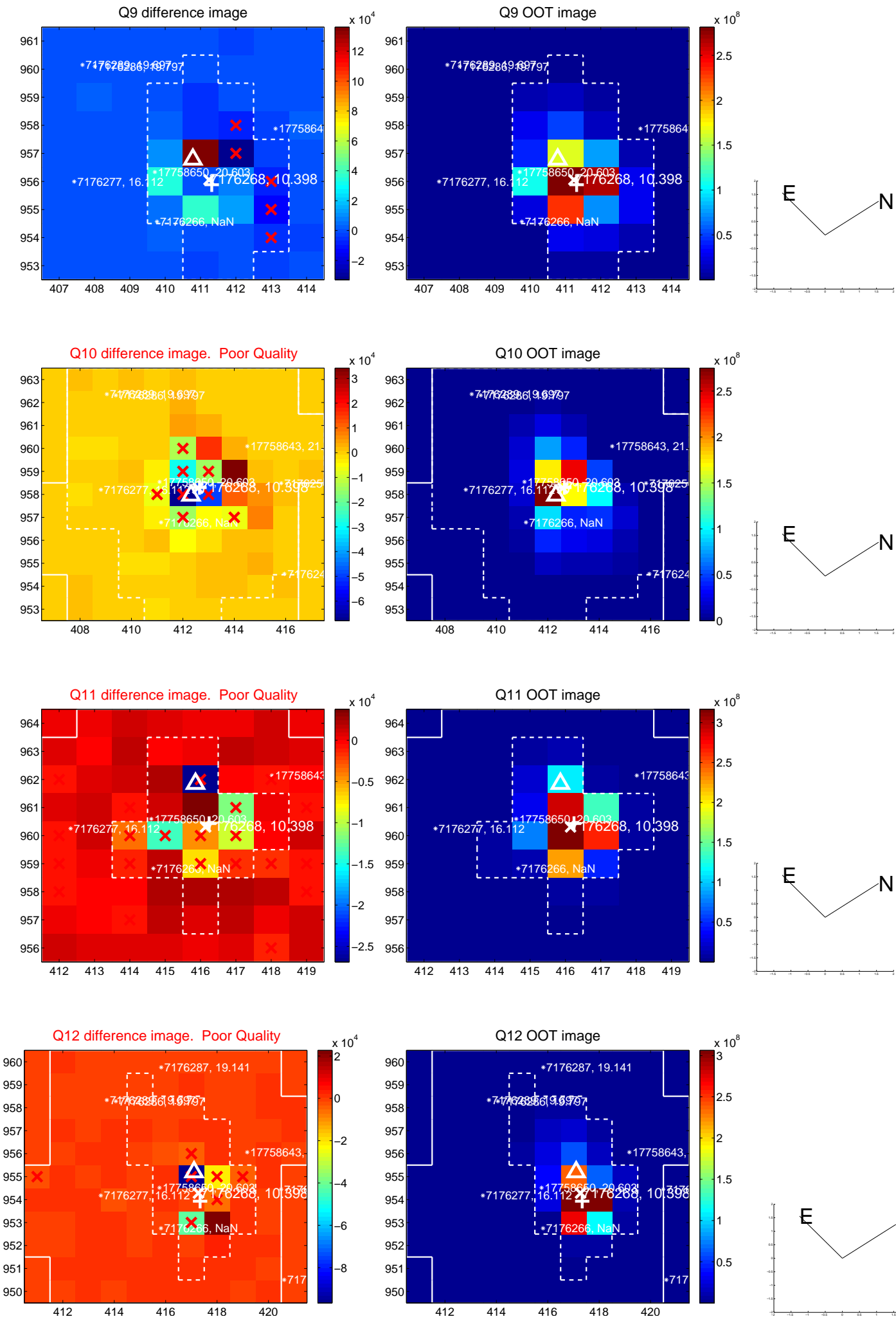
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



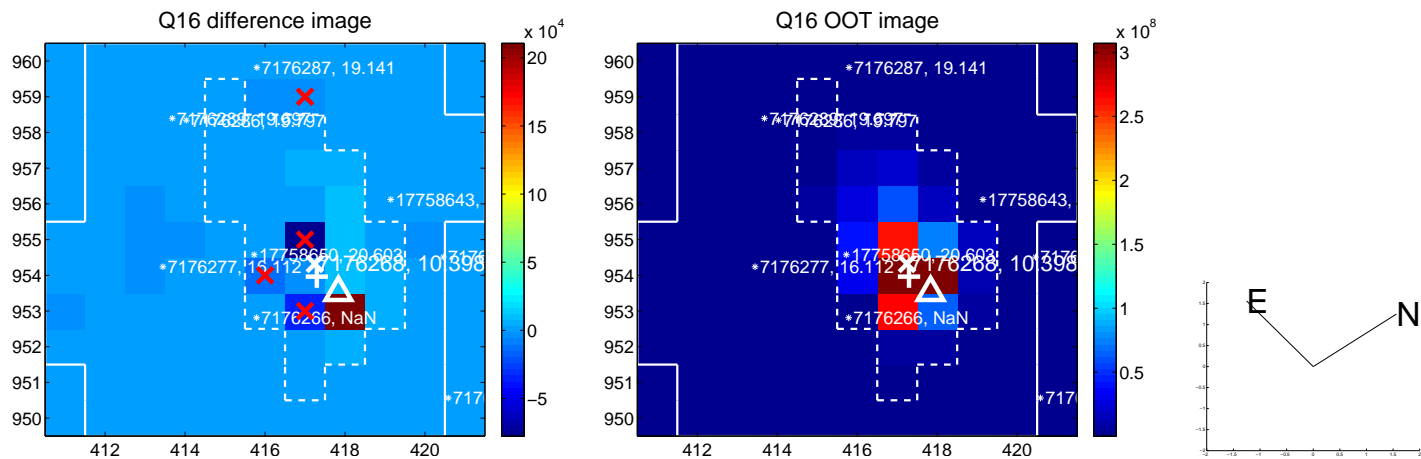
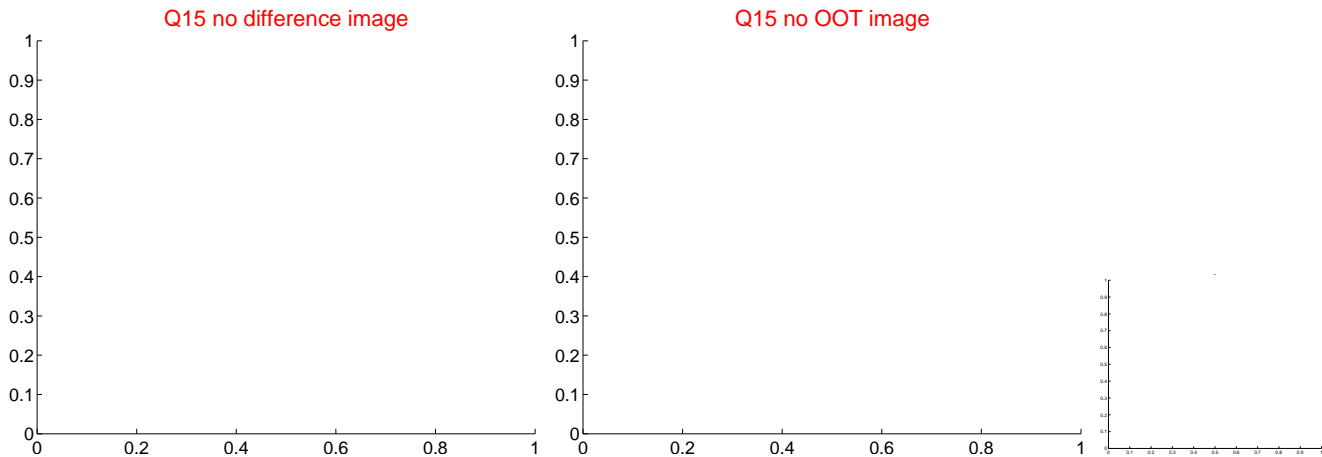
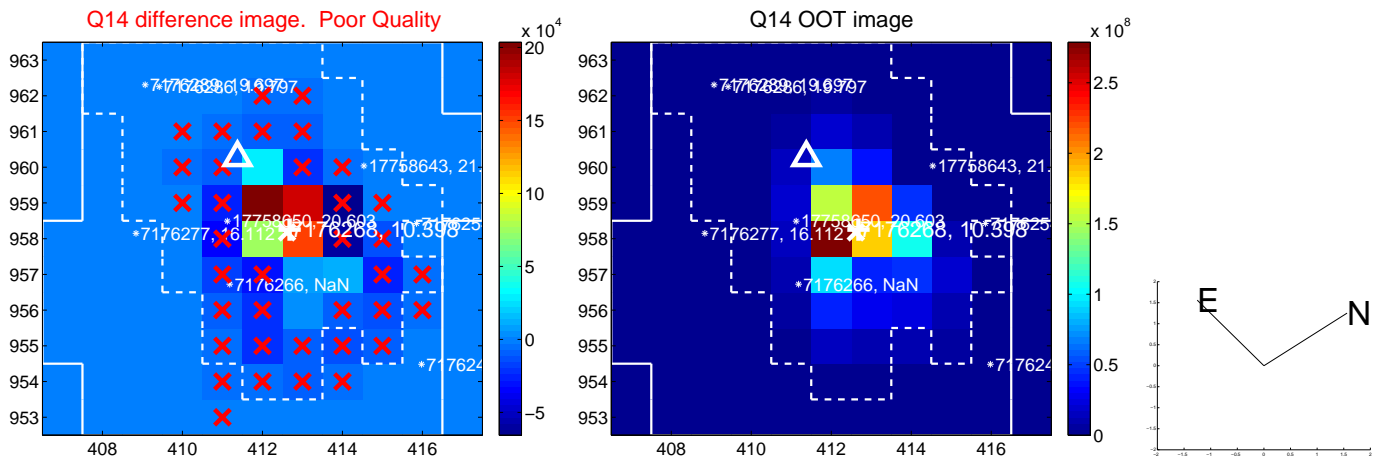
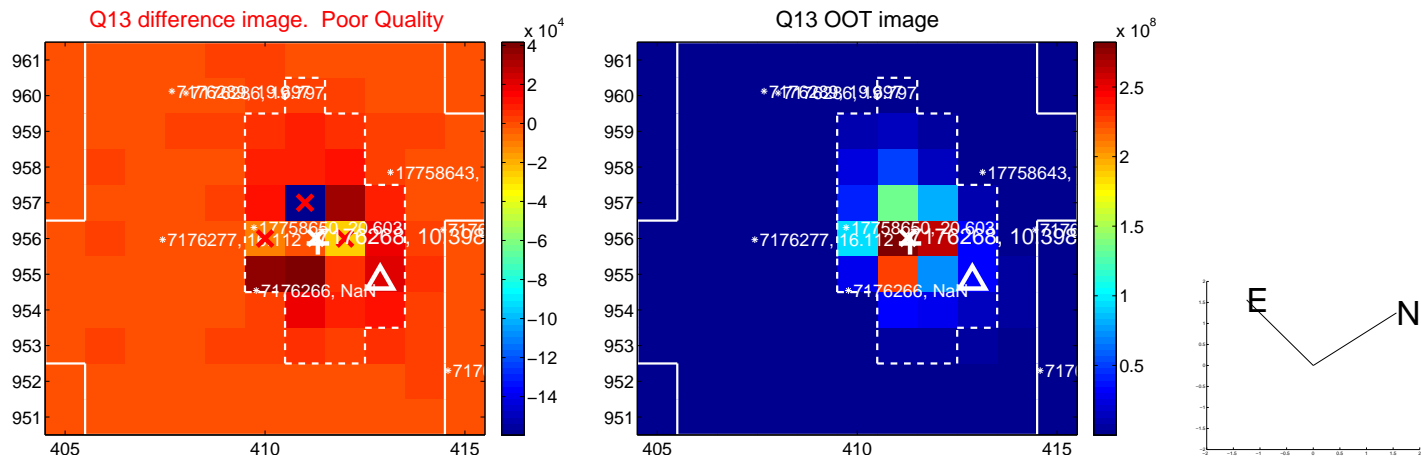
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



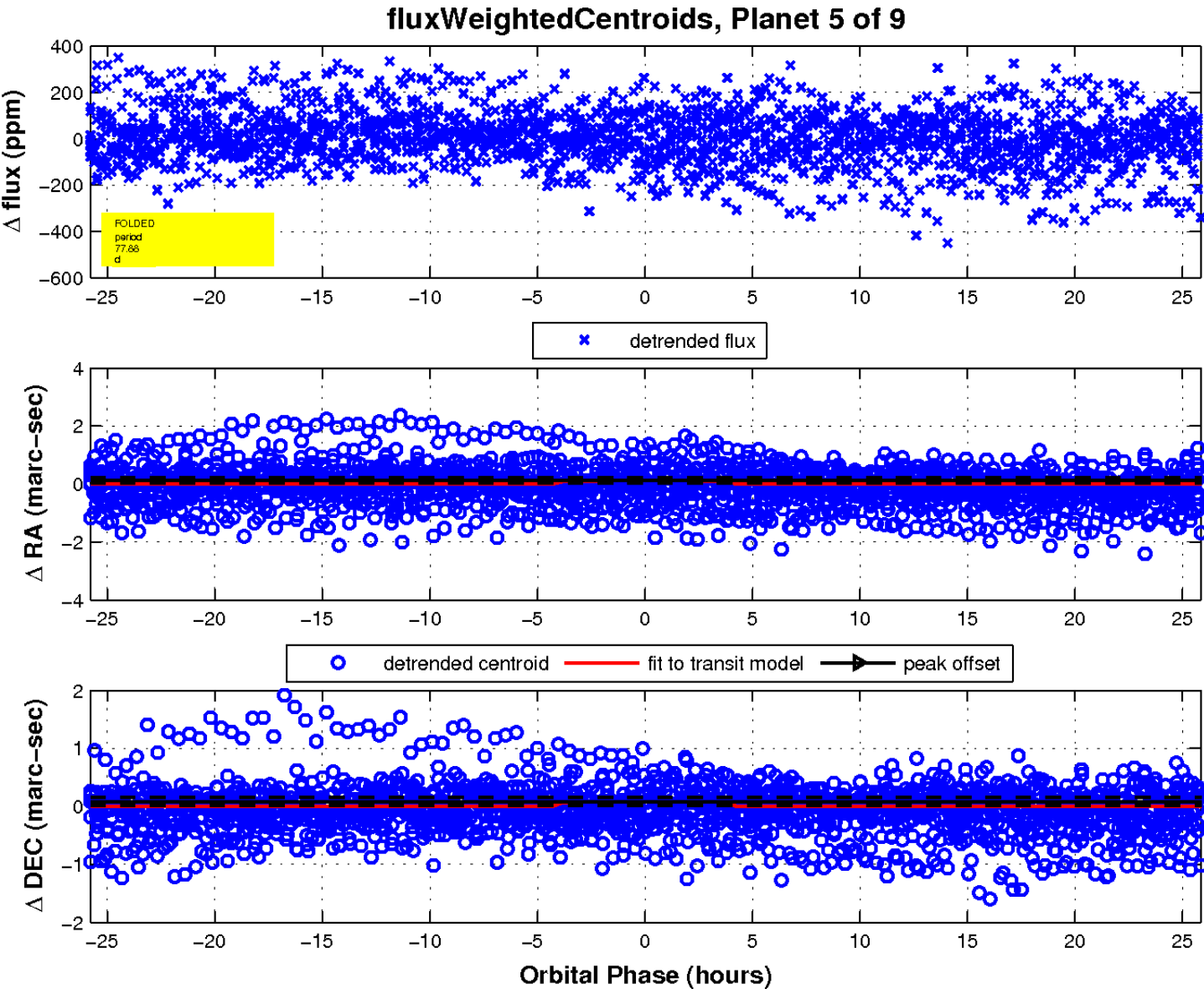
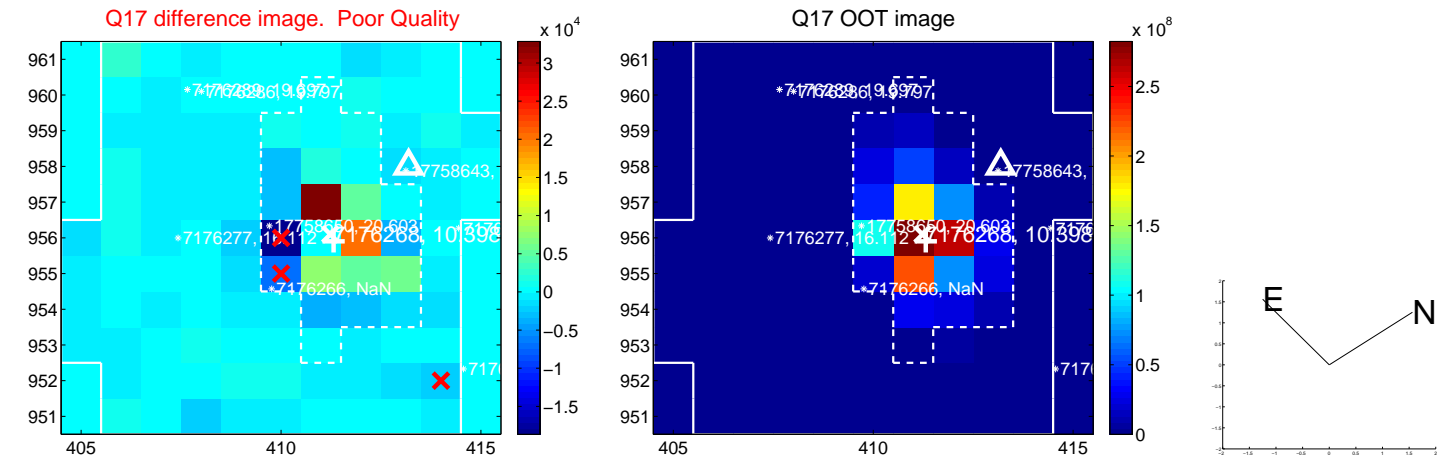
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

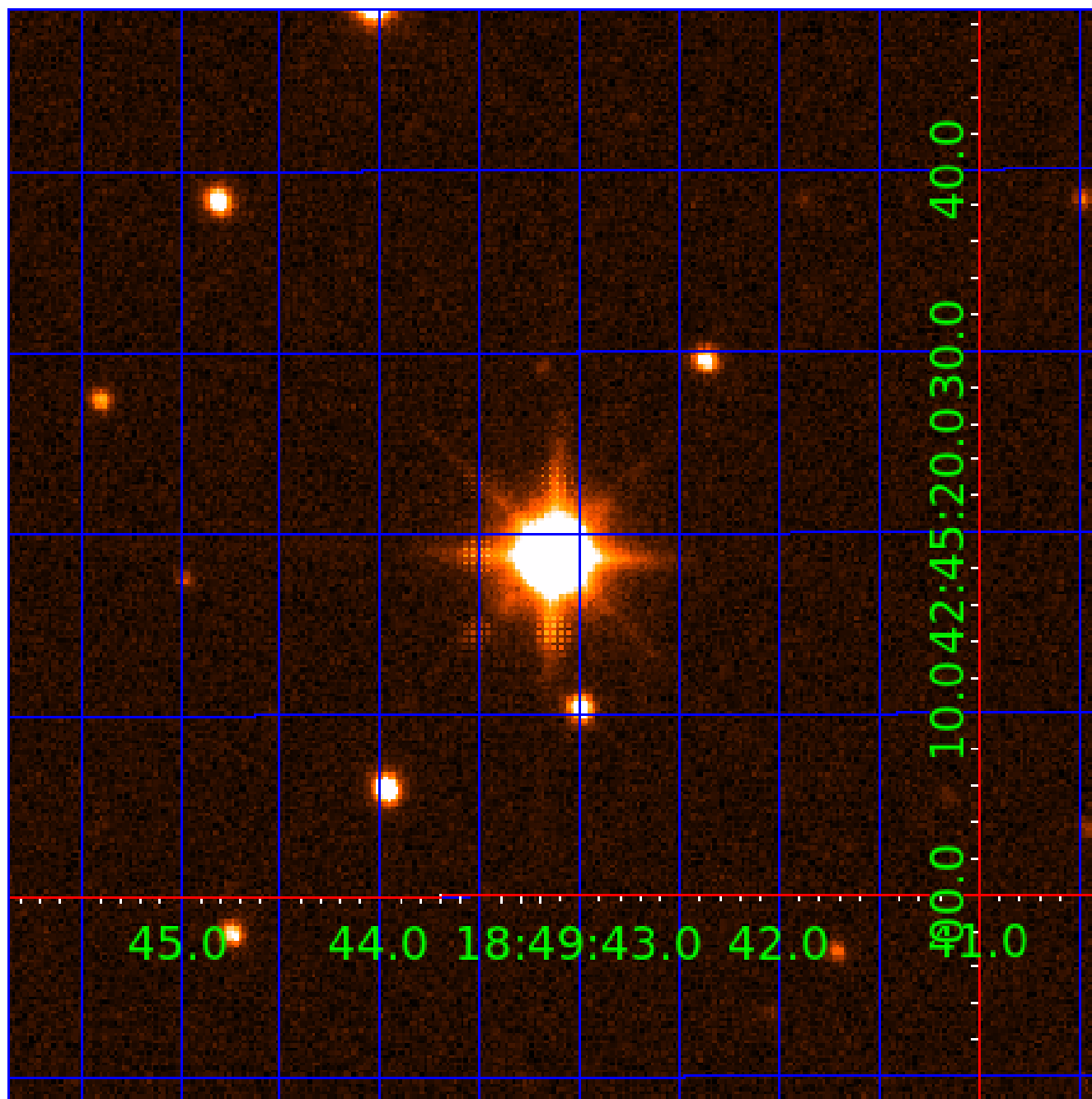


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007176268

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})
007176268-01	OBS	No	0.813753	132.060153	12.8	5.202	10.2	10.8	2.14	6698	0.84	21912.38
007176268-02	OBS	No	51.204386	153.350435	106.5	3.823	12.4	4.7	2.14	6698	2.52	87.55
007176268-03	OBS	No	79.682941	165.313349	234.5	3.218	11.6	9.4	2.14	6698	3.77	48.55
007176268-04	OBS	No	102.901731	181.369342	163.1	3.825	12.8	8.5	2.14	6698	3.13	34.52
007176268-05	OBS	No	77.880572	171.840913	124.3	8.625	11.2	5.9	2.14	6698	2.76	50.05
007176268-06	OBS	No	174.110248	213.867569	311.3	7.376	11.3	9.7	2.14	6698	7.27	17.12
007176268-07	OBS	No	79.596048	135.056846	103.3	5.051	9.8	4.1	2.14	6698	2.48	48.62
007176268-08	OBS	No	518.428552	304.103724	317.1	7.383	8.8	9.1	2.14	6698	4.44	4.00
007176268-09	OBS	No	58.906583	179.024332	178.2	3.792	7.3	7.4	2.14	6698	4.51	72.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007176268-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007176268-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007176268-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007176268-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007176268-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_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.

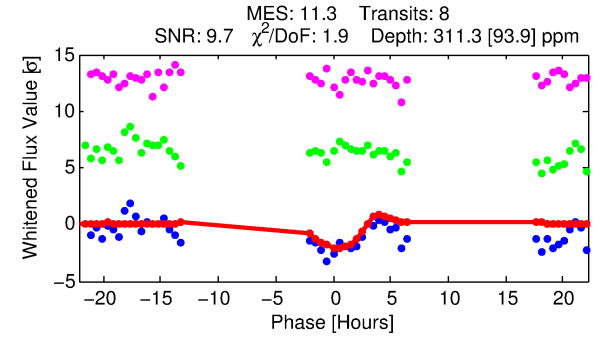
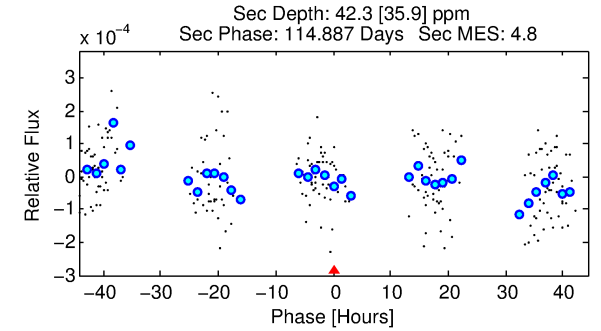
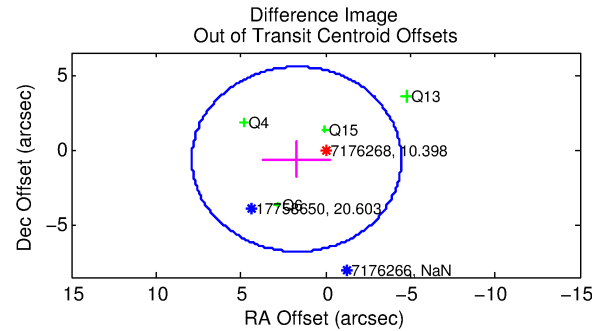
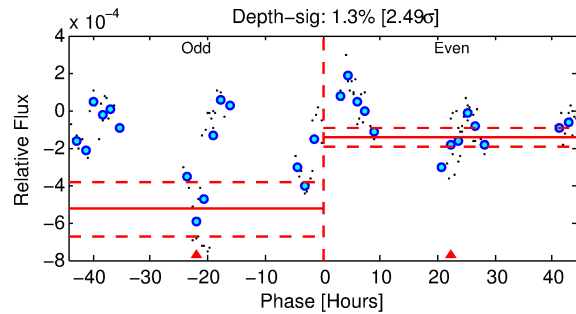
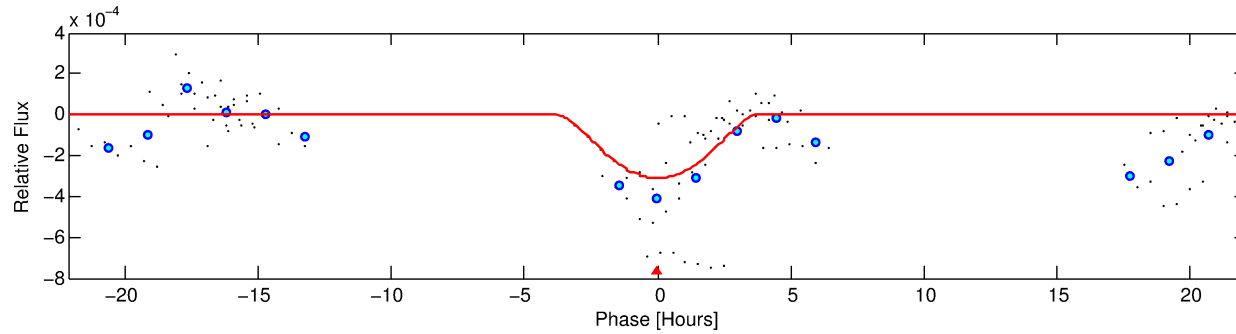
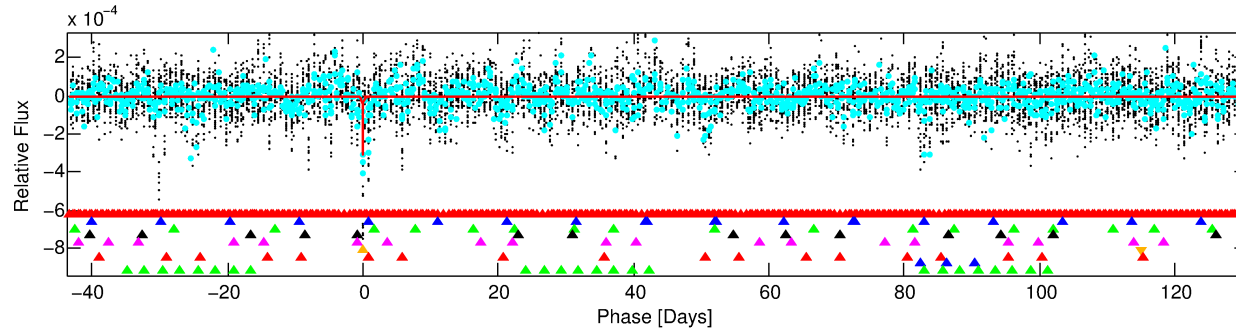
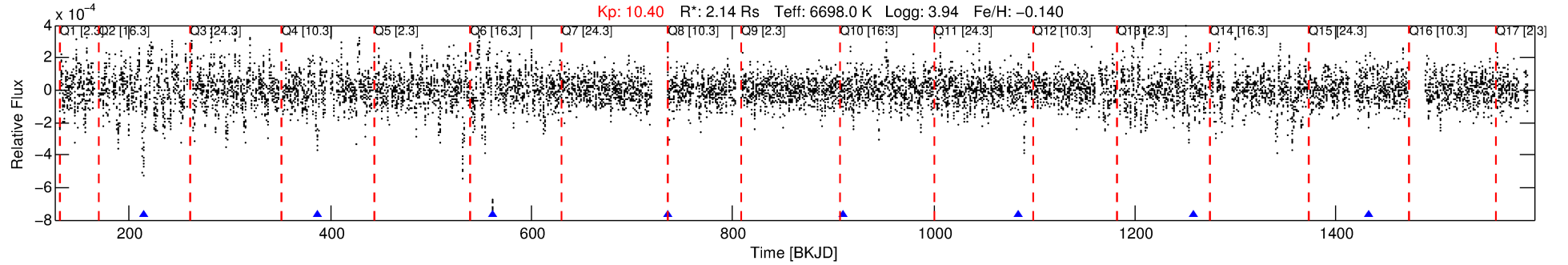
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007176268-06

No Significant Match Found

DV One-Page Summary

KIC: 7176268 Candidate: 6 of 9 Period: 174.110 d



DV Fit Results:

Period = 174.11025 [0.00859] d
Epoch = 213.8676 [0.0250] BKJD
Rp/R* = 0.0312 [0.0879]
a/R* = 45.65 [36.32]
b = 1.00 [0.13]
Seff = 17.12 [7.35]
Teq = 519 [56] K
Rp = 7.27 [20.60] Re
a = 0.6938 [0.1842] AU
Ag = 212.23 [1213.51] [0.17 σ]
Teffp = 3061 [4365] K [0.58 σ]

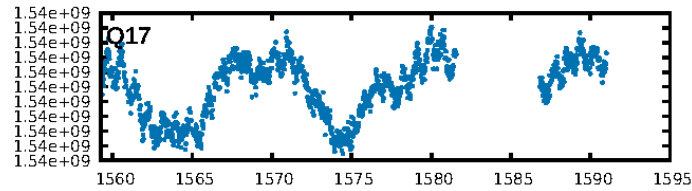
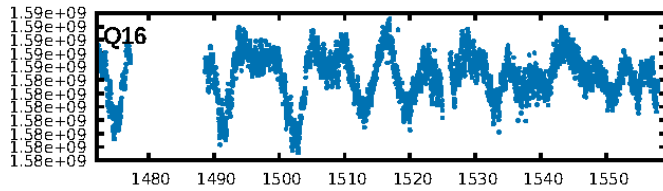
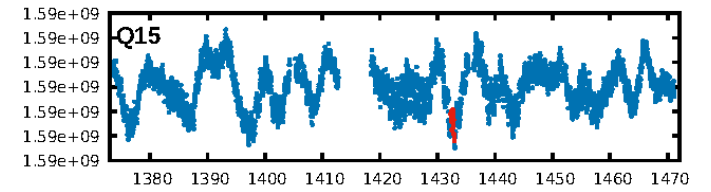
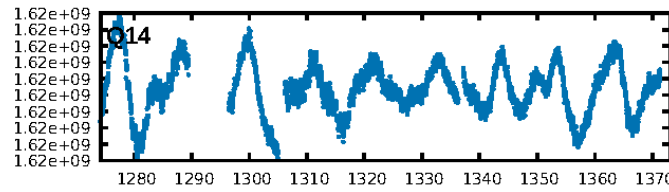
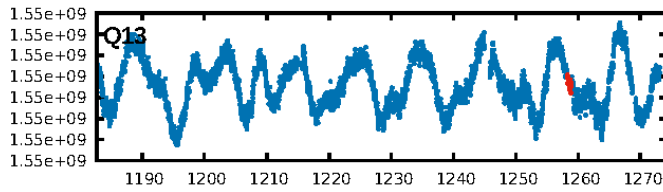
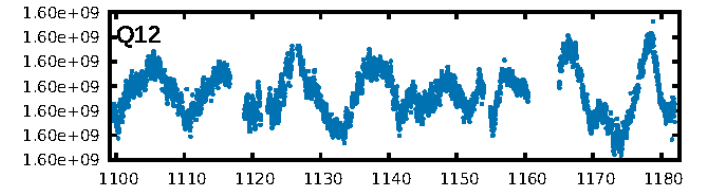
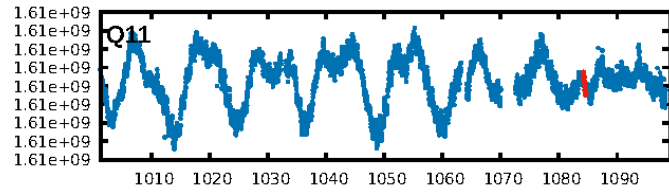
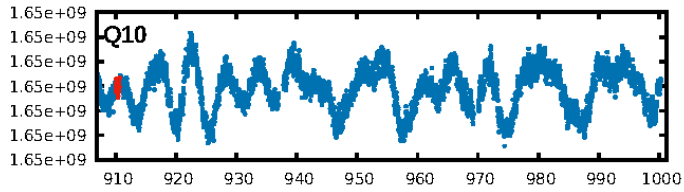
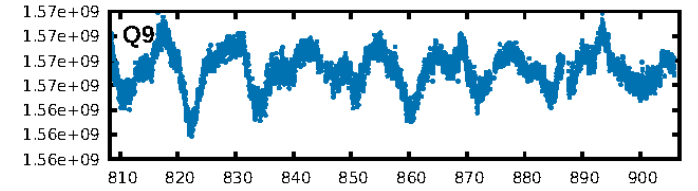
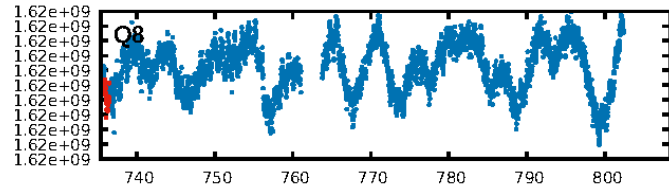
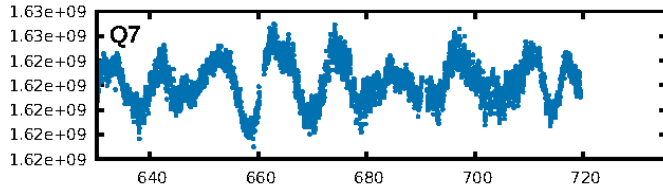
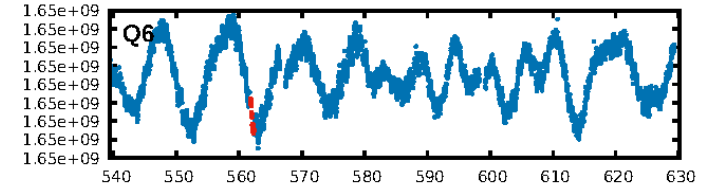
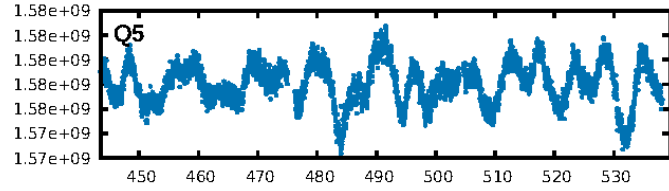
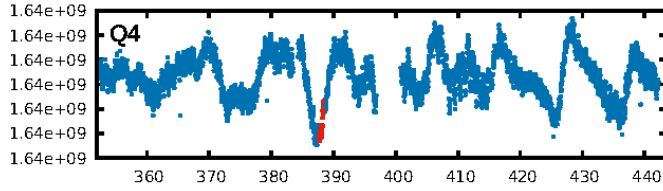
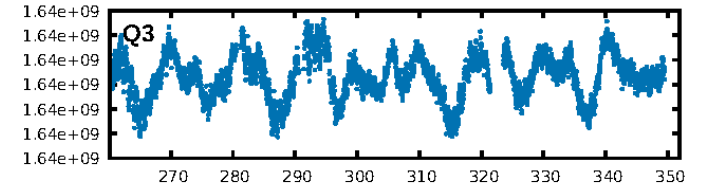
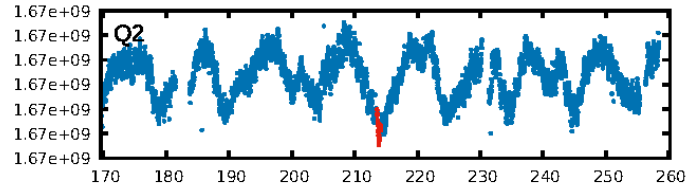
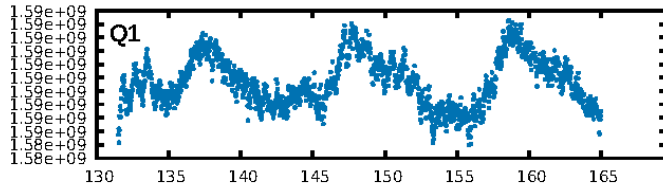
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [205.70 σ]
LongPeriod-sig: 100.0% [791.84 σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.62e-14
RollingBand-fgt: 1.00 [8/8]
GhostDiagnostic-chr: 0.2587
Centroid-sig: 19.4%
Centroid-so: 0.710 arcsec [1.35 σ]
OotOffset-rm: 1.818 arcsec [0.88 σ]
KicOffset-rm: 1.887 arcsec [0.94 σ]
OotOffset-st: 1/1/1/1 [4]
KicOffset-st: 1/1/1/1 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 0.00 [0/7]

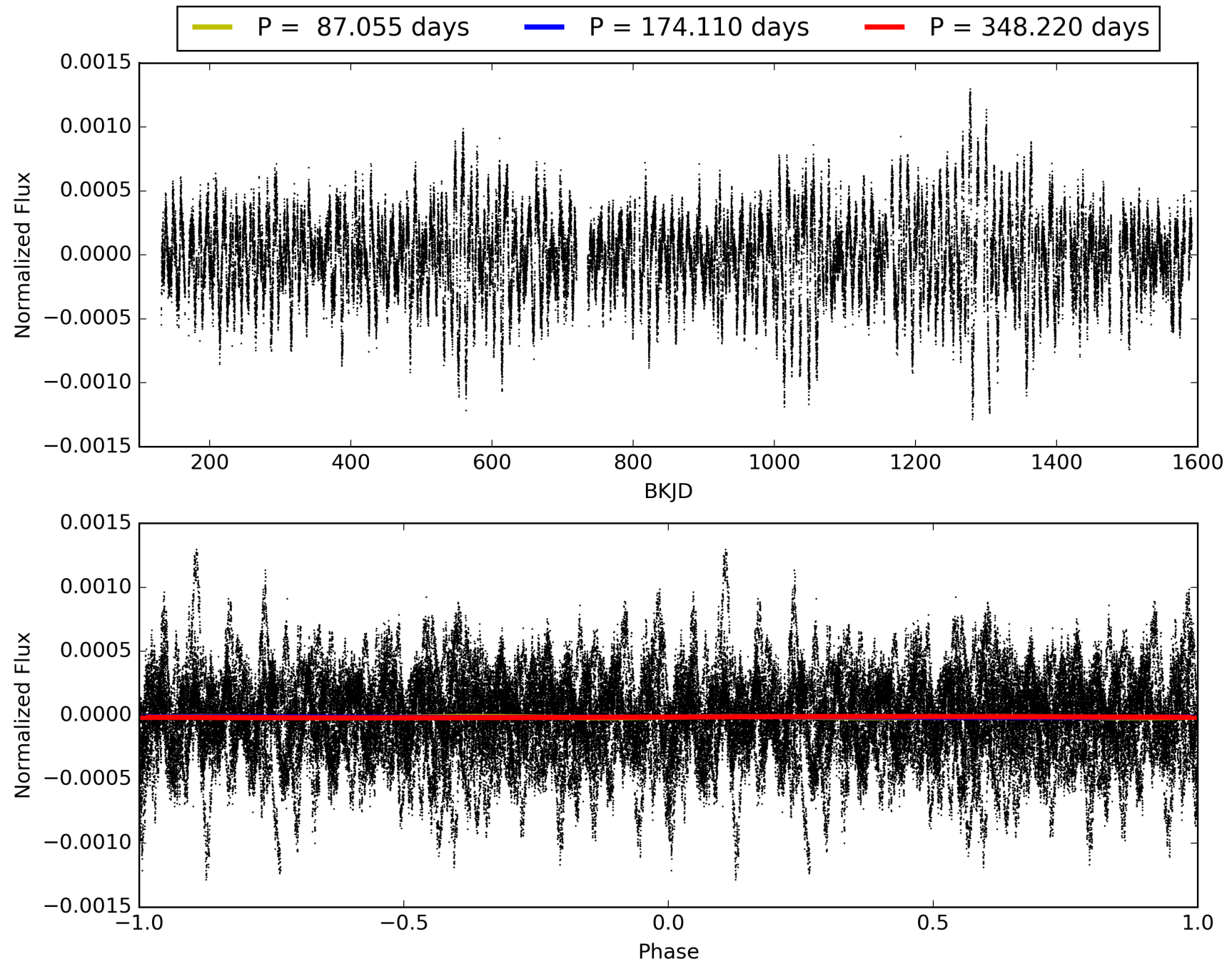
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 01:50:05 Z

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

TCE 007176268-06, PDC Light Curves

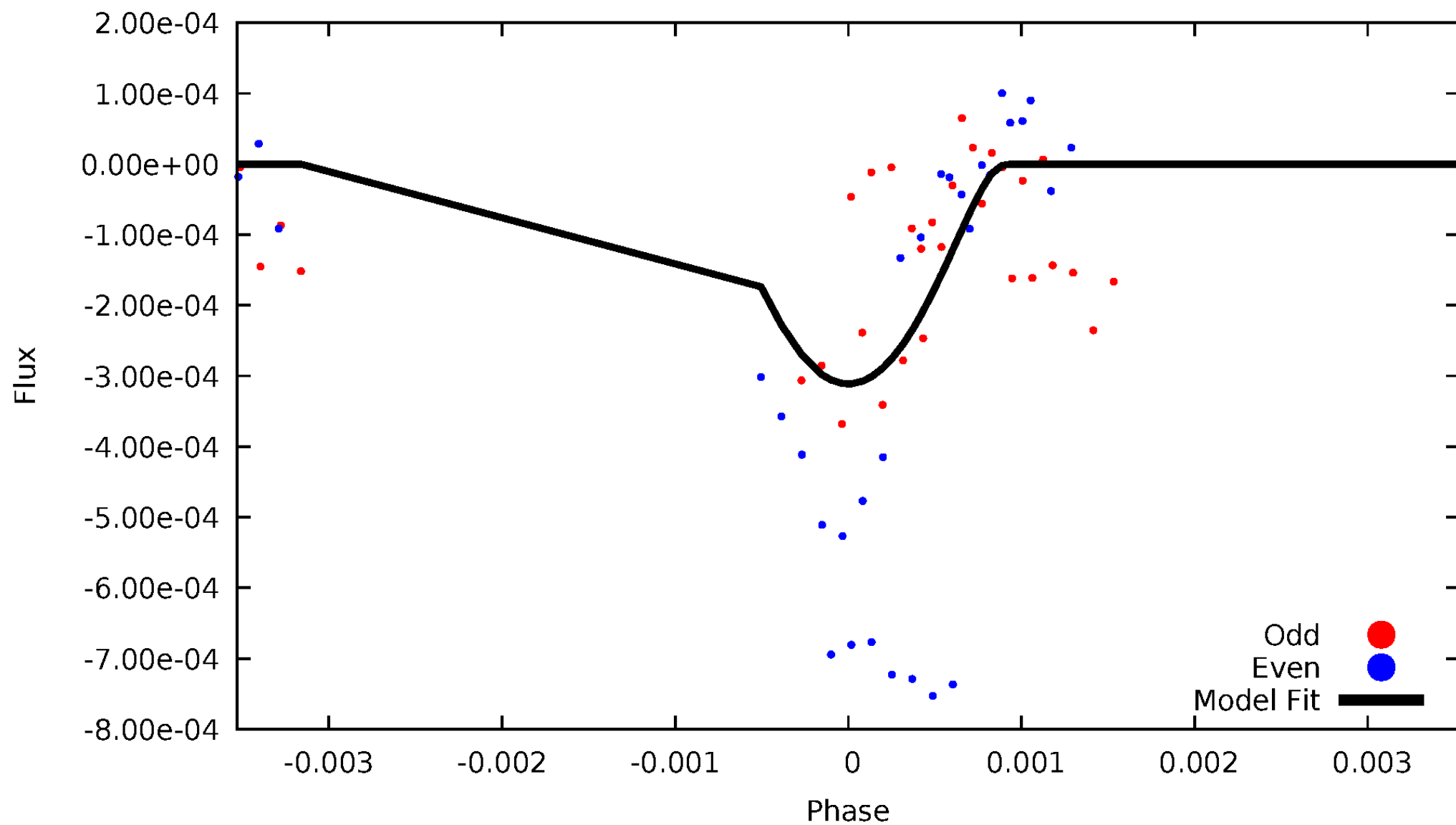


TCE 007176268-06



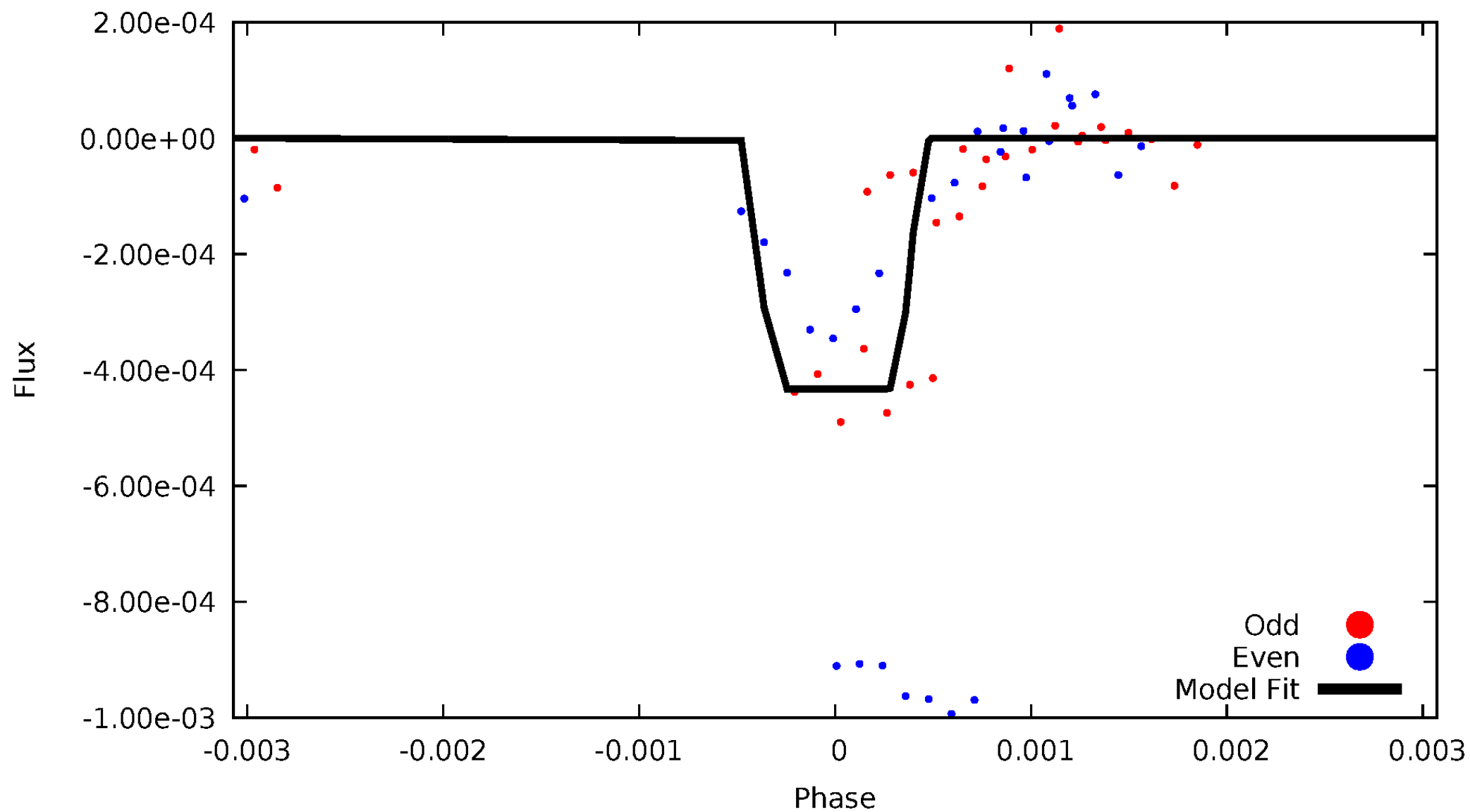
DV Odd/Even

TCE 007176268-06



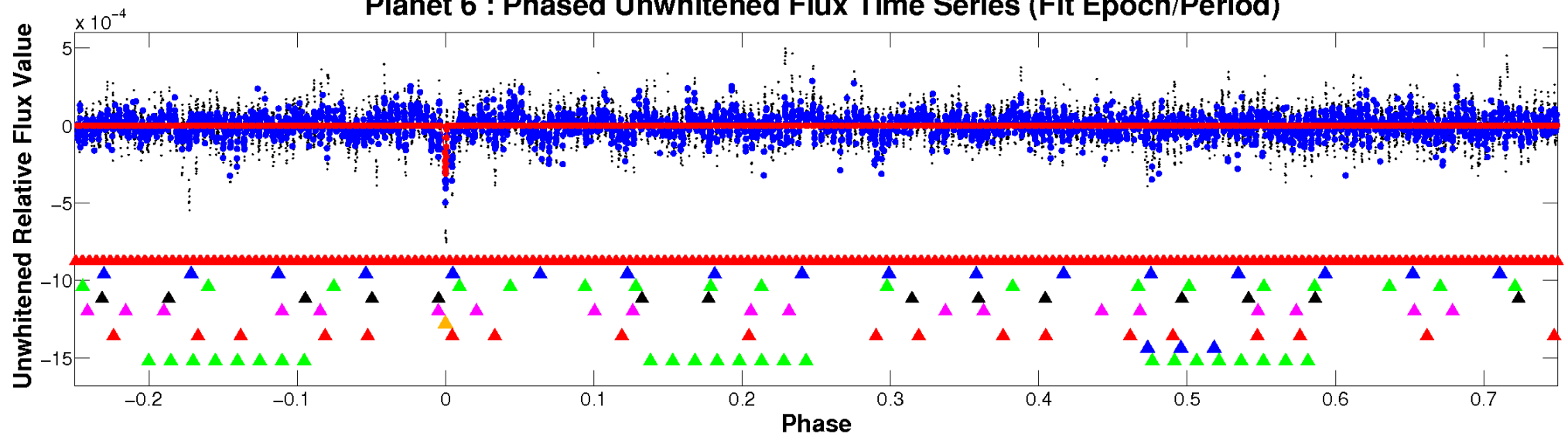
ALT Odd/Even

TCE 007176268-06

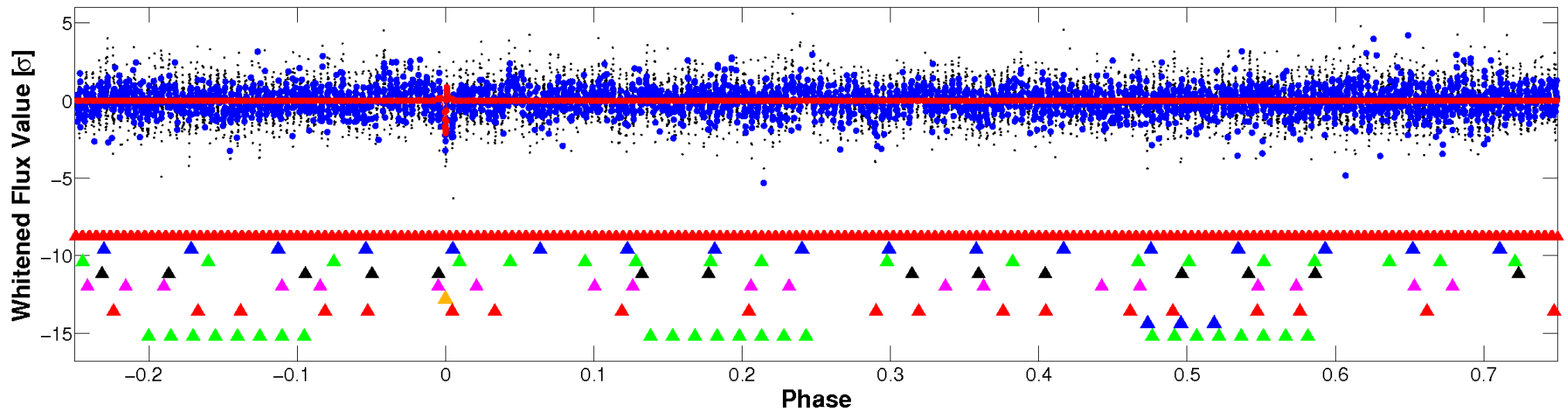


Non-Whitened Vs. Whitened Light Curve

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

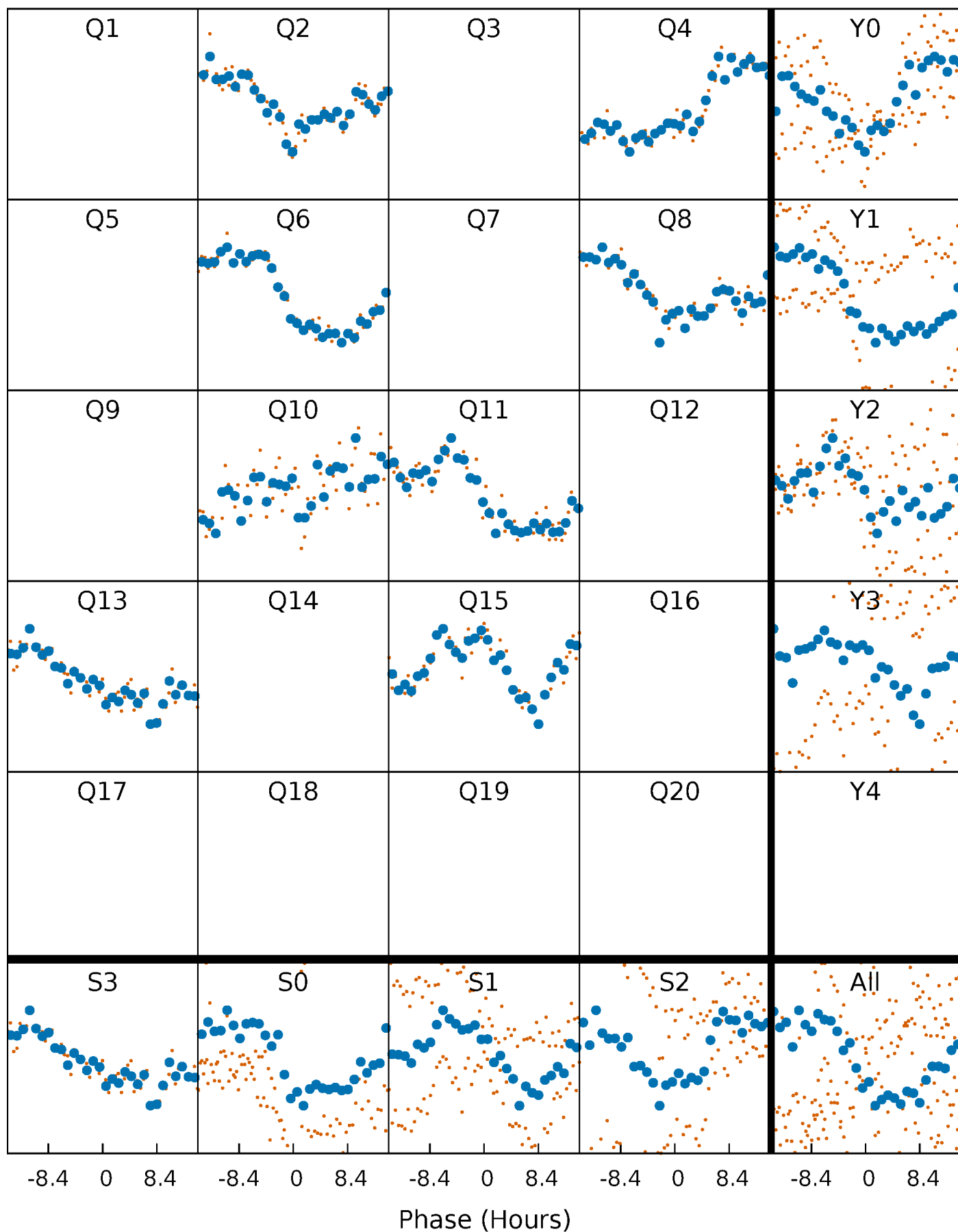


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



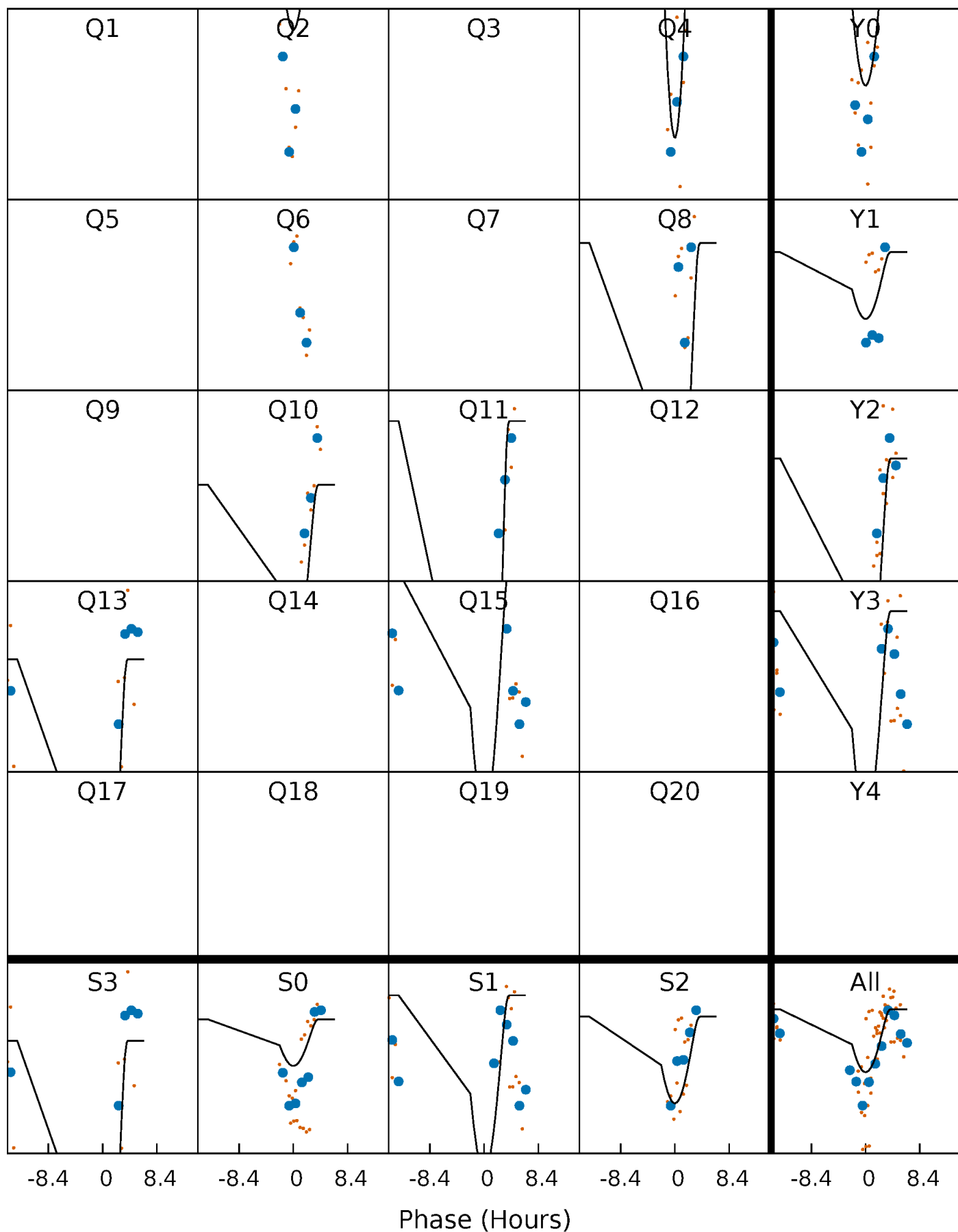
PDC Quarter-Phased Transit Curves

TCE 007176268-06 P=174.110248 Days $T_0=213.867569$ (BKJD)



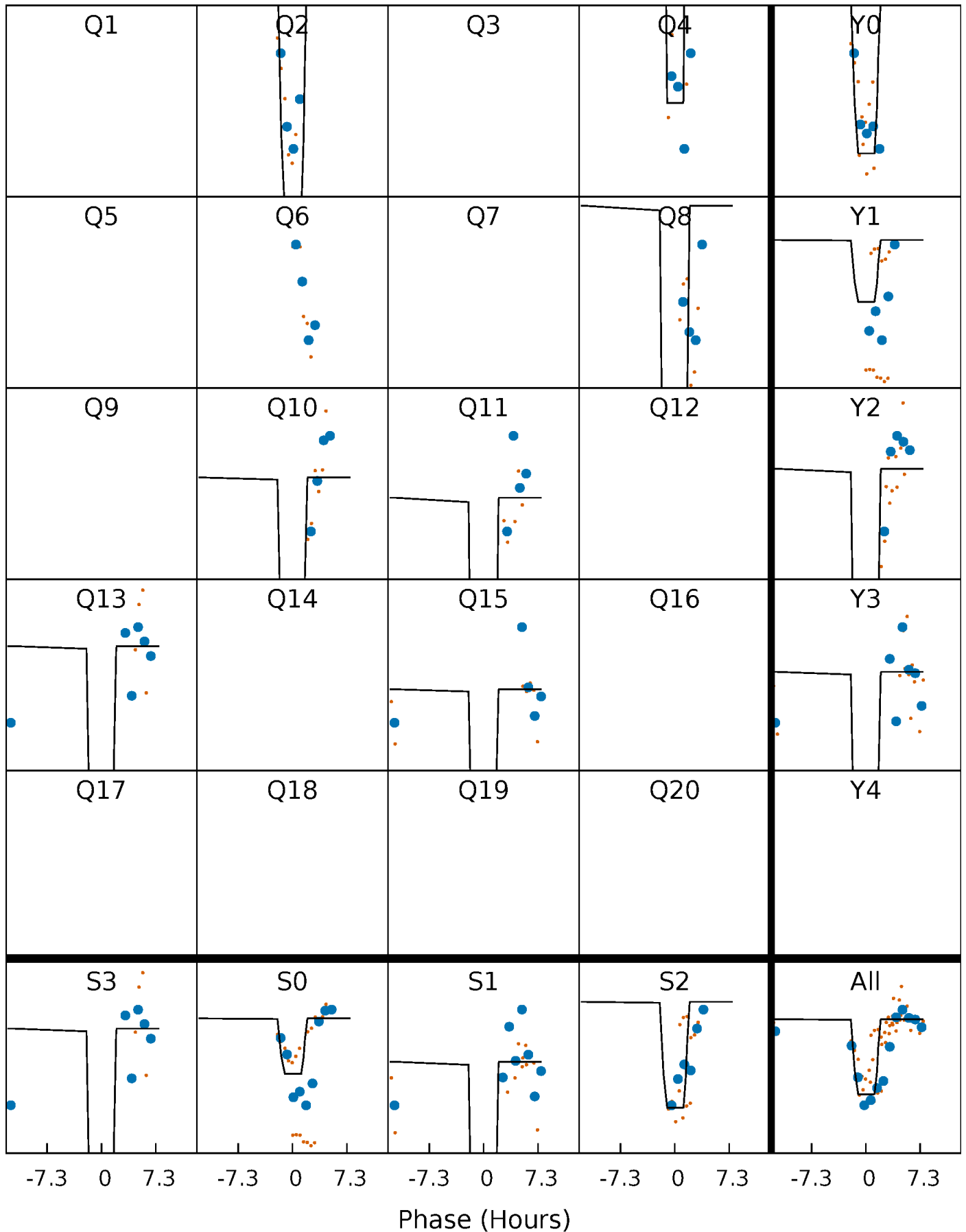
DV Quarter-Phased Transit Curves

TCE 007176268-06 P=174.110248 Days $T_0=213.867569$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

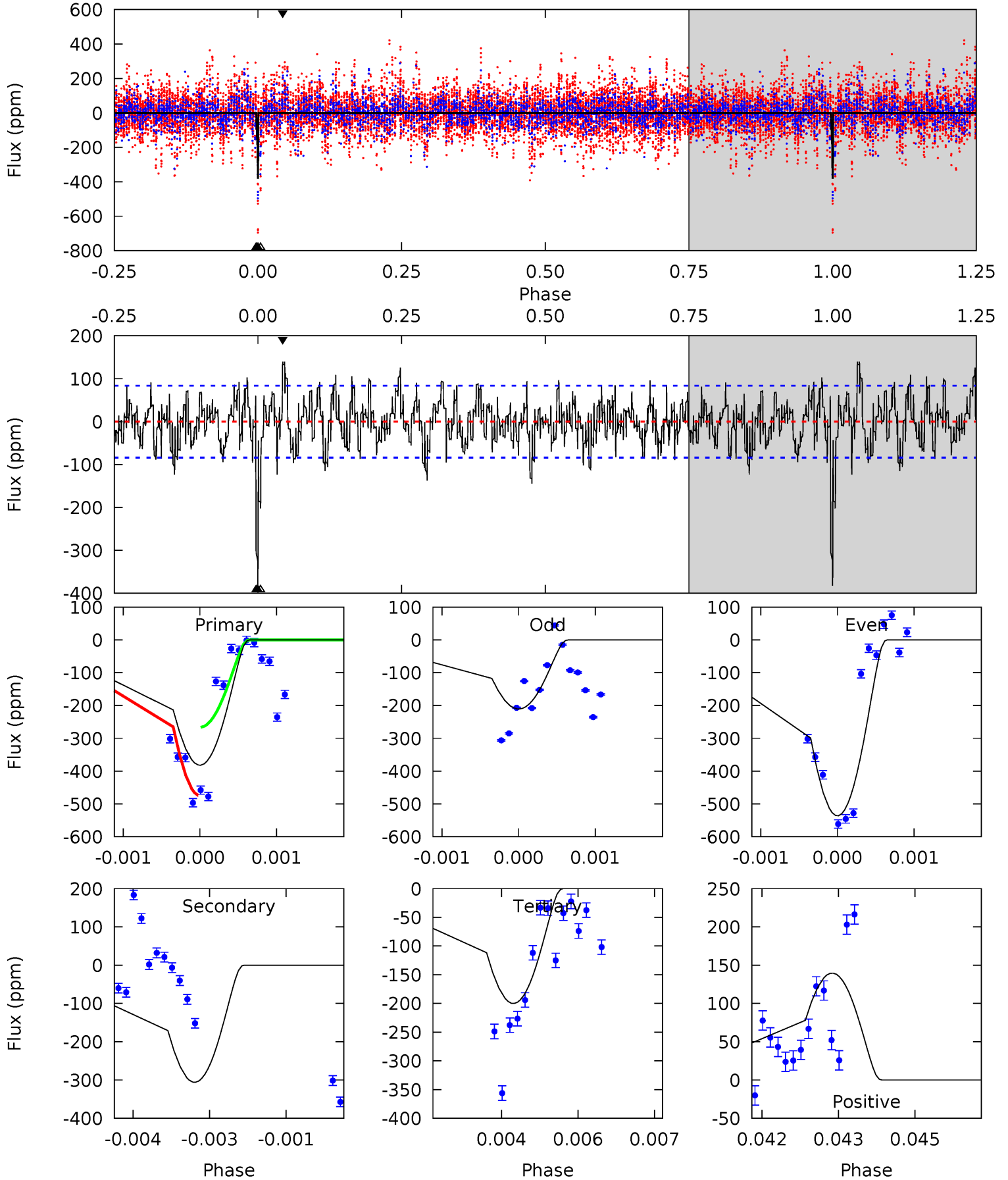
TCE 007176268-06 P=174.102992 Days $T_0=213.863372$ (BKJD)



DV Model-Shift Uniqueness Test

007176268-06, P = 174.110248 Days, E = 39.757321 Days

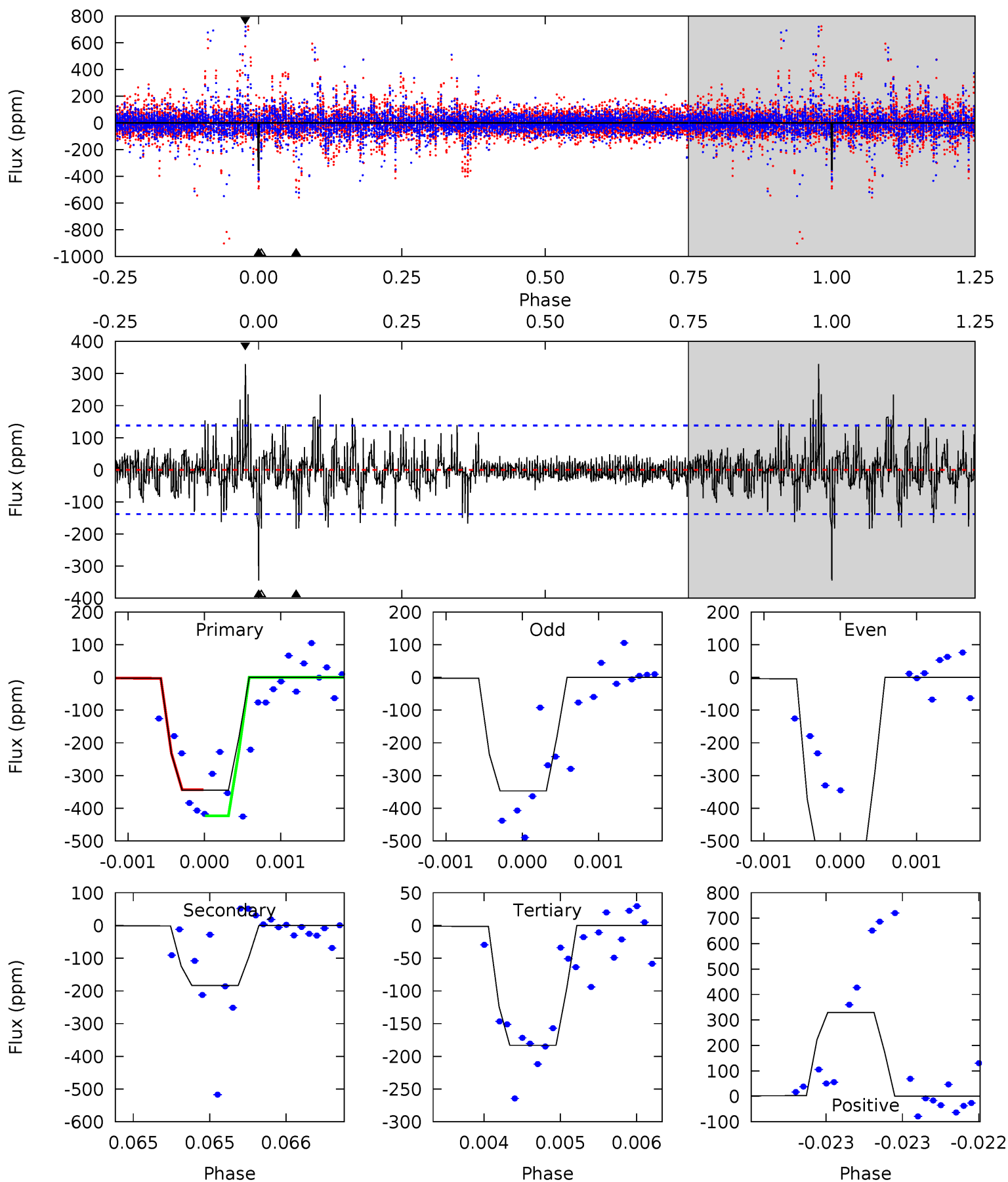
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.6	19.7	12.9	8.99	5.39	3.19	2.66	11.7	15.6	6.81	10.7	11.0	1.95	0.27	5.55



Alt Model-Shift Uniqueness Test

007176268-06, P = 174.102992 Days, E = 39.760380 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.7	7.29	7.27	13.1	5.48	3.34	1.63	6.42	0.61	0.02	-5.79	3.70	1.22	0.49	1.65



Stellar Parameters For KIC 007176268

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6698^{+151}_{-184}	$3.945^{+0.240}_{-0.129}$	$-0.140^{+0.300}_{-0.250}$	$2.138^{+0.501}_{-0.613}$	$1.469^{+0.186}_{-0.256}$	$0.212^{+0.314}_{-0.082}$
	+2%/-3%	+6%/-3%	+214%/-179%	+23%/-29%	+13%/-17%	+148%/-39%
Source	PHO1	FLK73	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 007176268-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-306 ± 16	$16.54^{+17.29}_{-11.13}$	715^{+46}_{-53}	3651^{+2060}_{-668}	301^{+2386}_{-228}
Alt.	-184 ± 25	$15.66^{+14.87}_{-11.66}$	714^{+47}_{-55}	3423^{+2373}_{-601}	195^{+2707}_{-144}

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

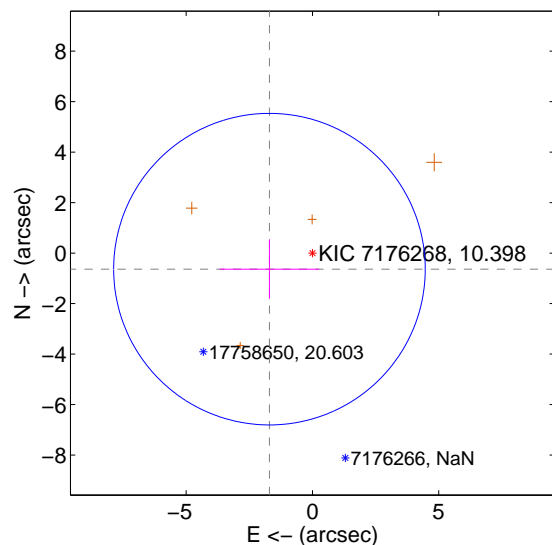
Supplemental centroid analysis for 007176268-06. **Kepler magnitude: 10.40.** Transit SNR 9.70

There are 0 quarters with good PRF difference image offsets

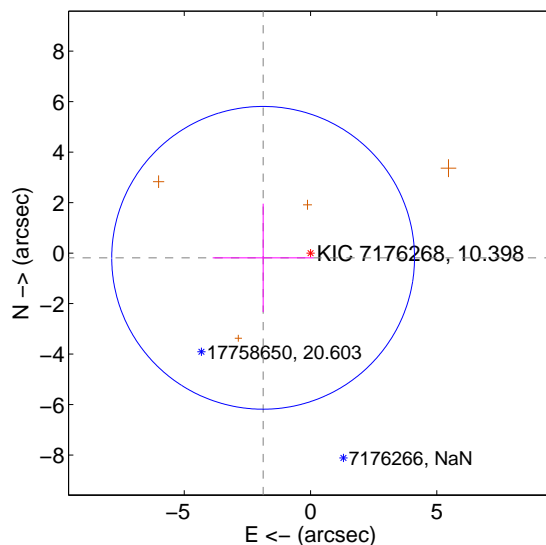
The direct PRF centroid is offset from the target star catalog position by about 0.59 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.818 ± 2.057	0.88	1.703 ± 1.970	-0.636 ± 1.175
PRF-fit source offset from KIC position	1.887 ± 1.999	0.94	1.878 ± 1.997	-0.187 ± 2.145
photometric centroid source offset	0.71 ± 0.53	1.35	-0.62 ± 0.56	0.35 ± 0.40

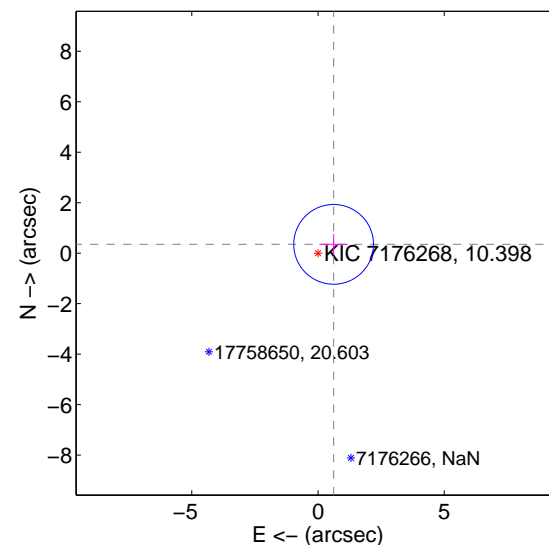
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

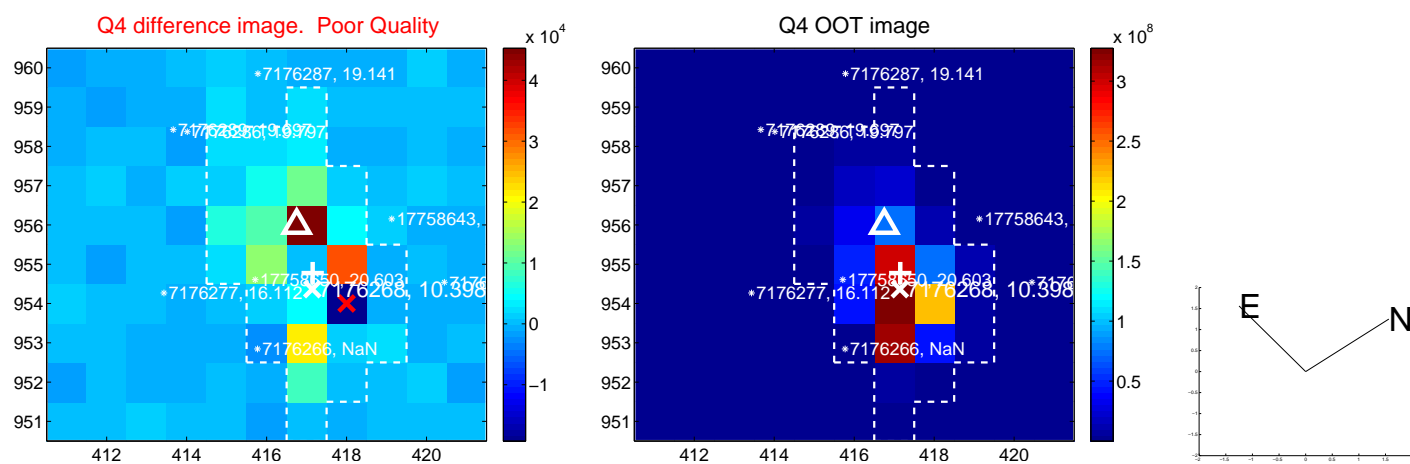
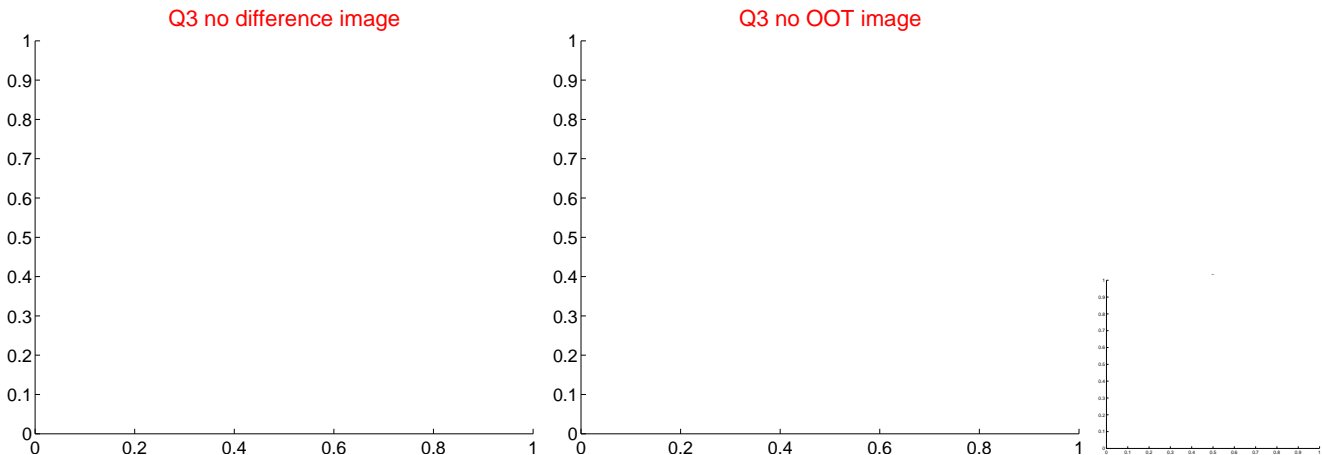
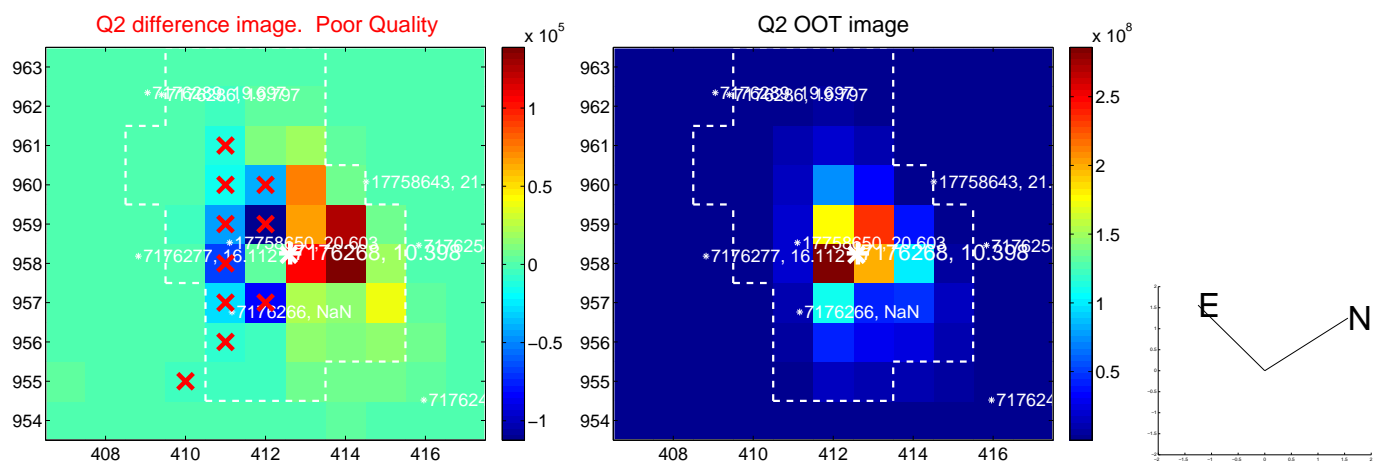
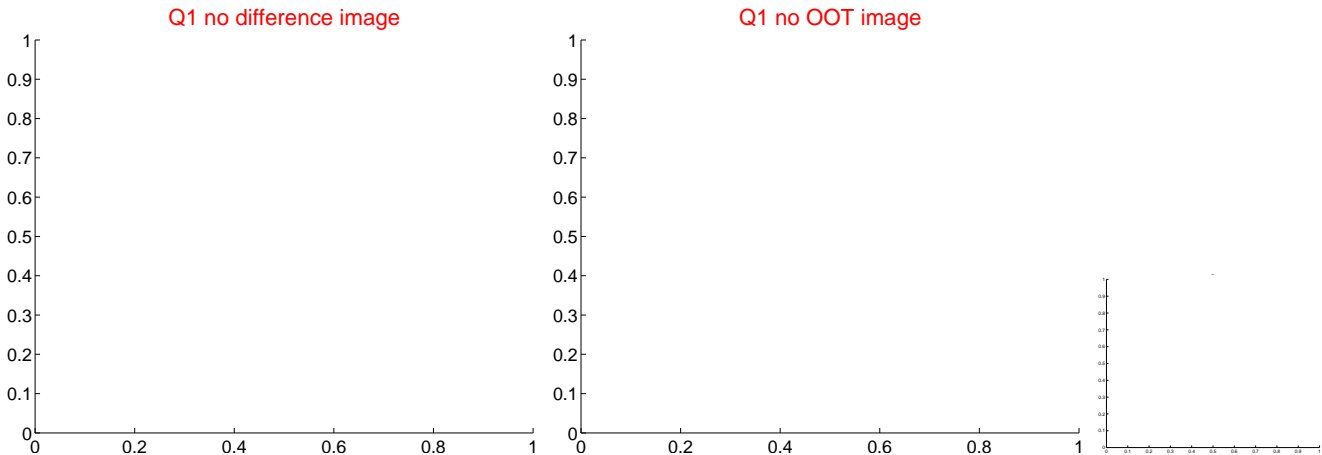


offset from photometric centroids

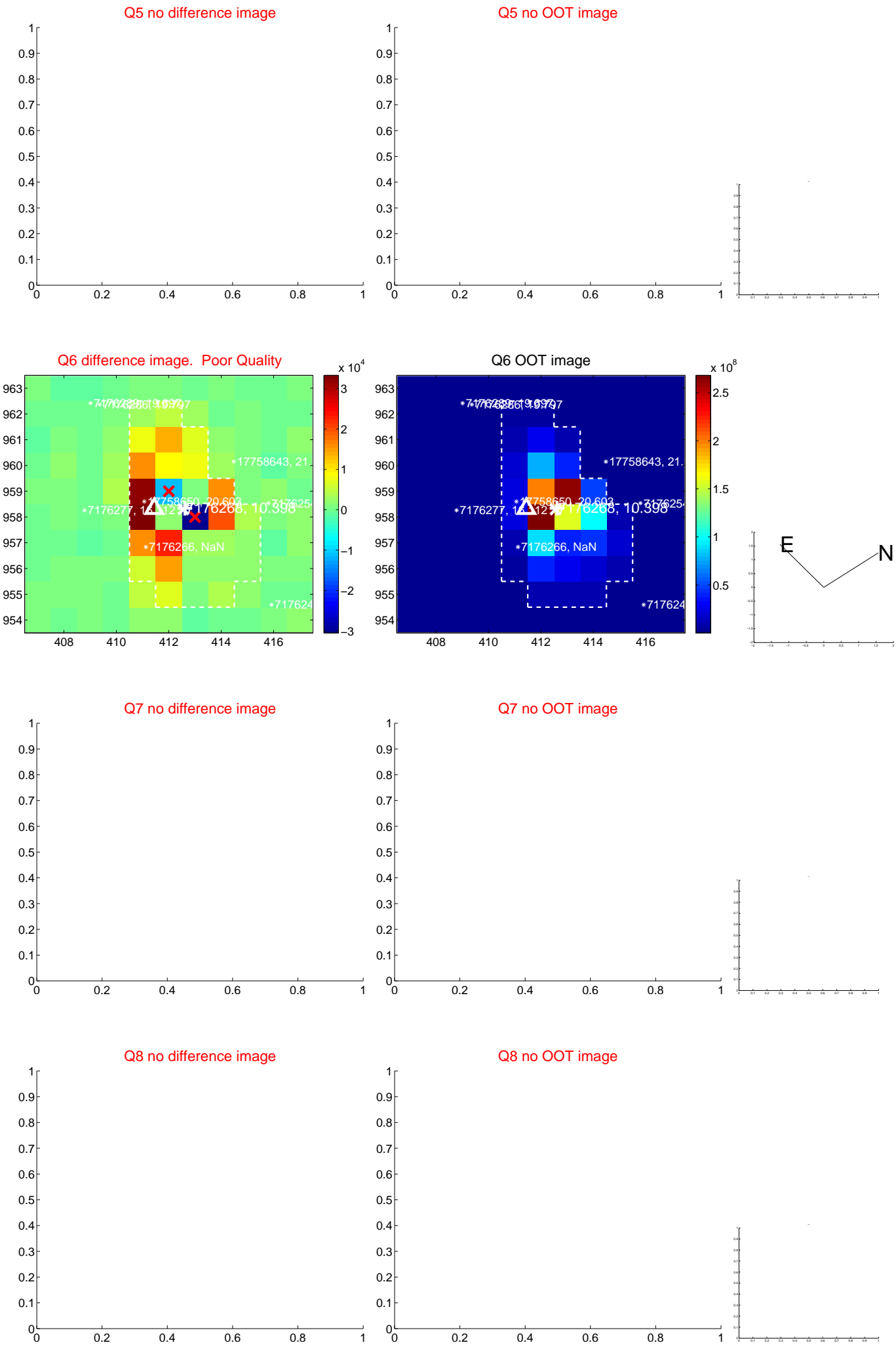


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

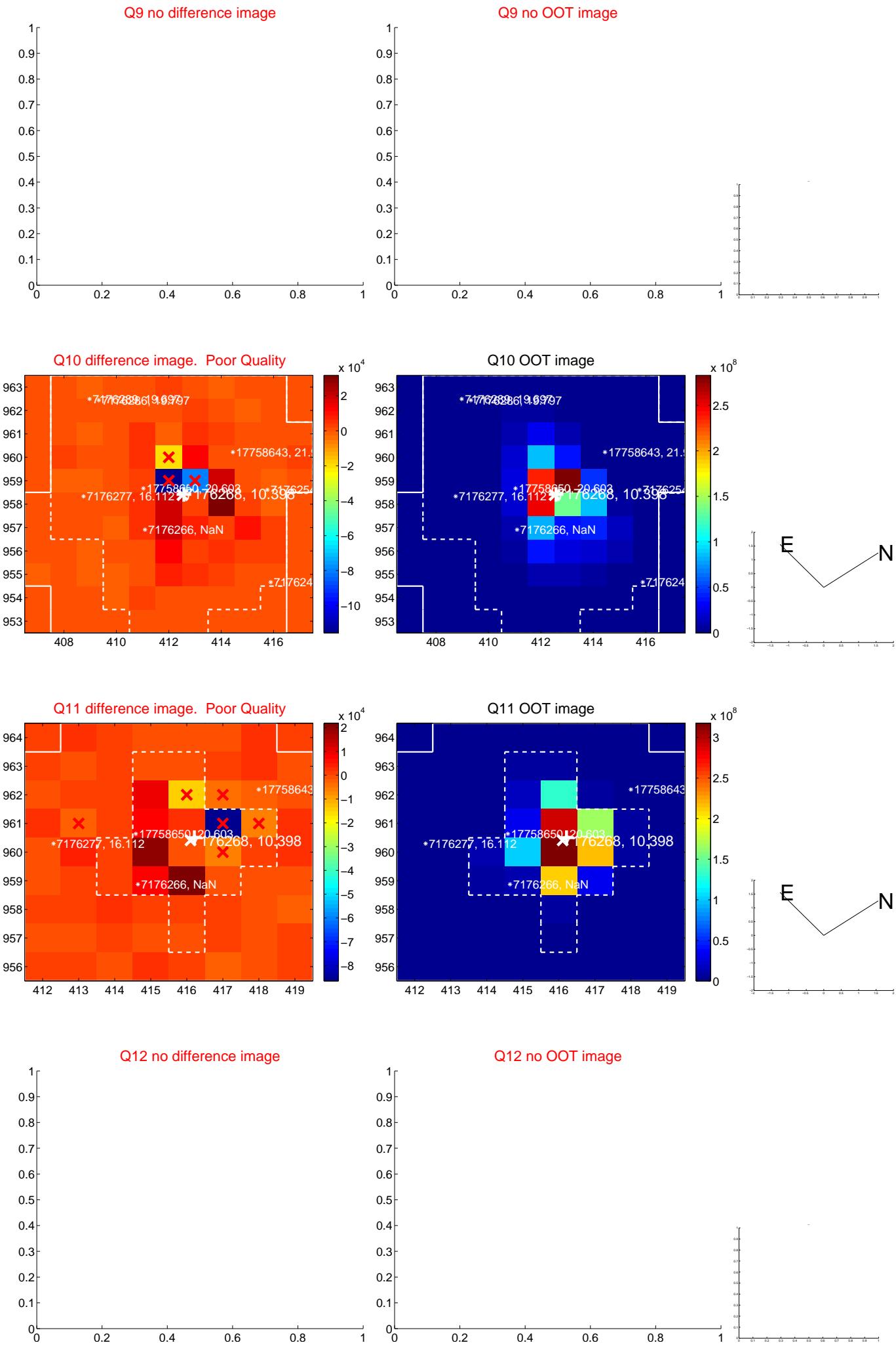
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



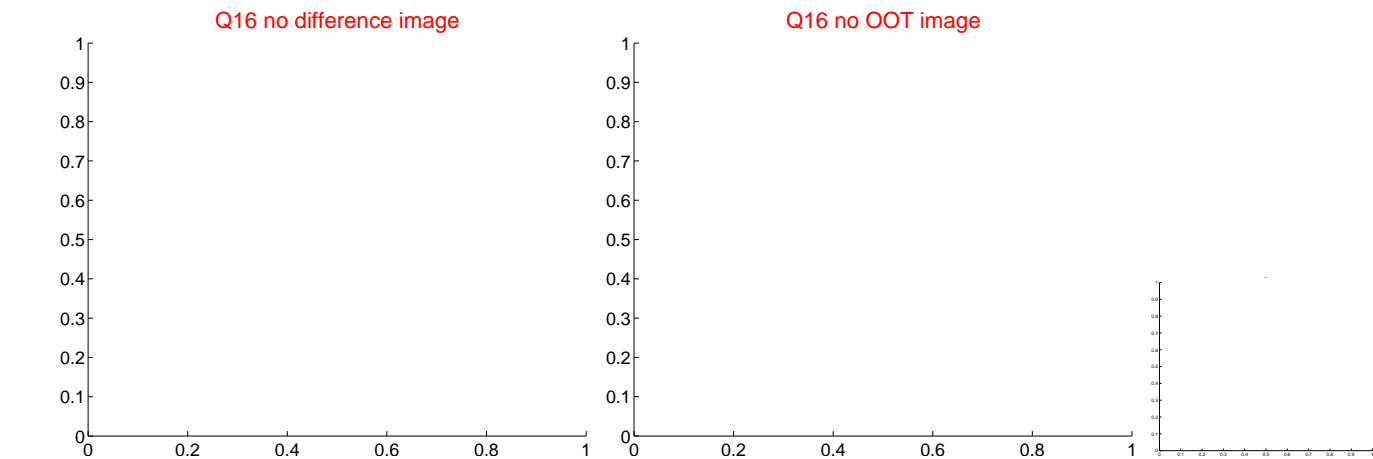
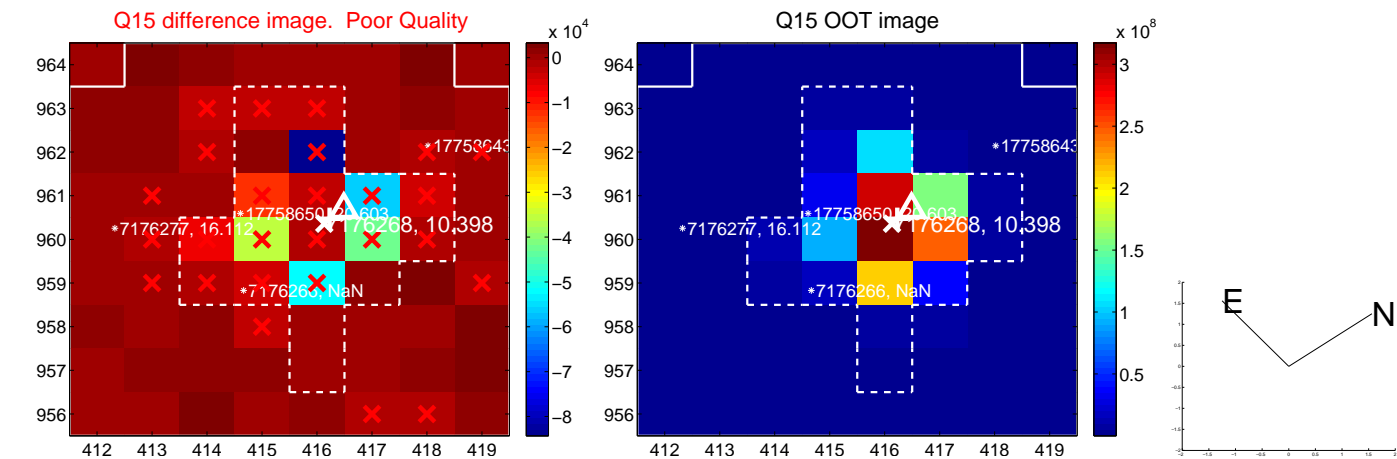
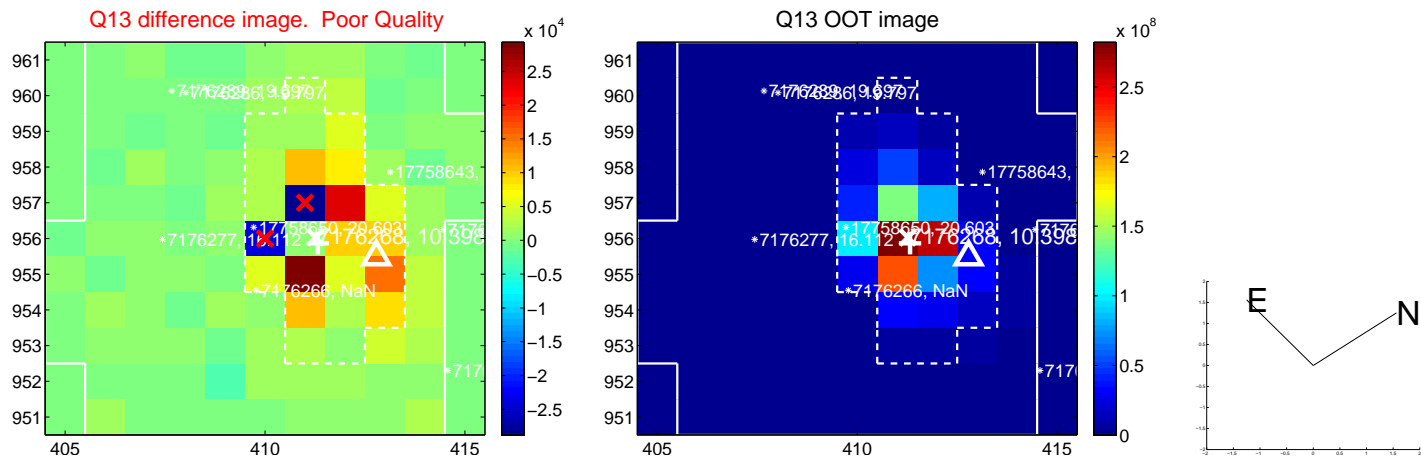
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



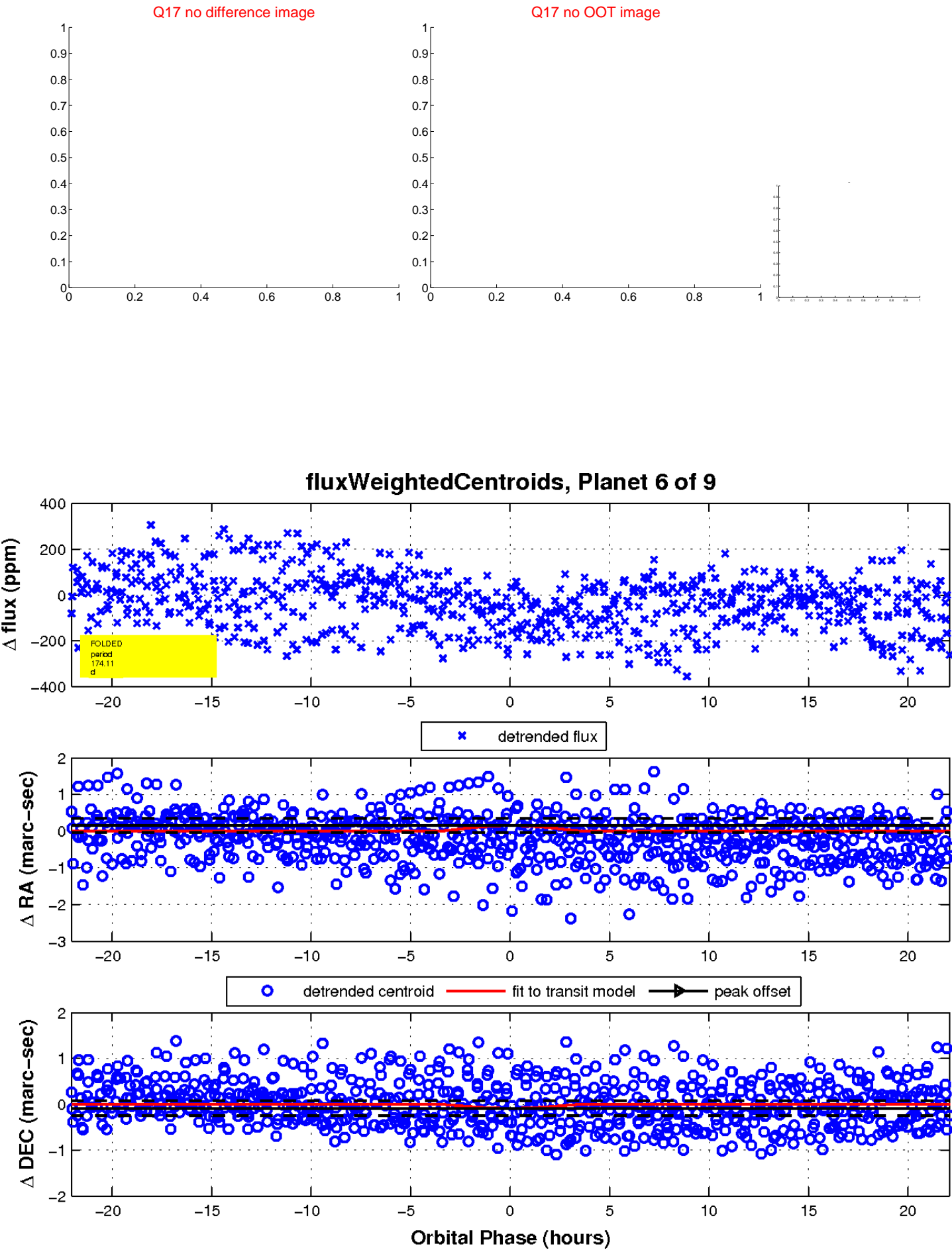
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

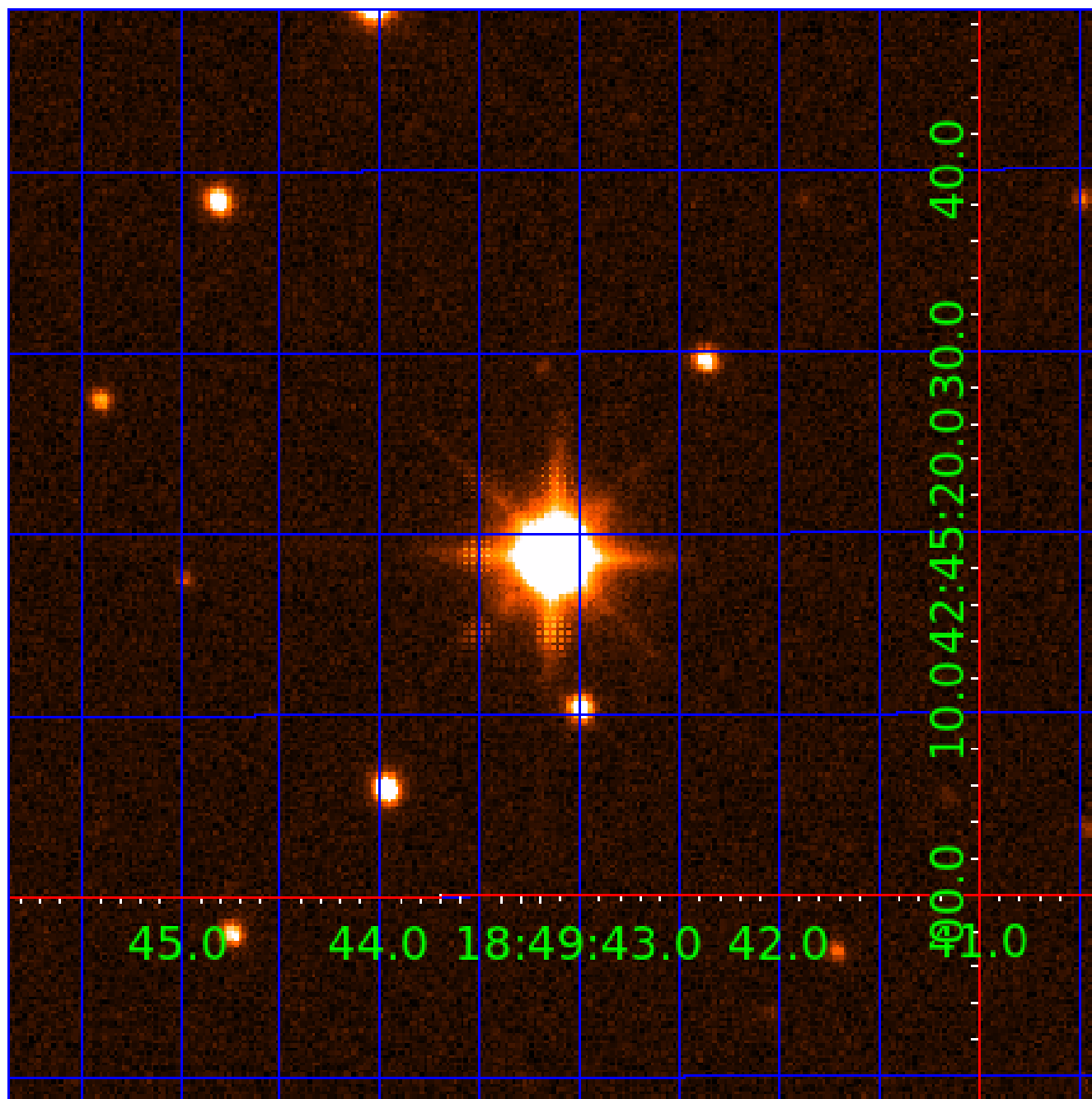


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007176268

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})
007176268-01	OBS	No	0.813753	132.060153	12.8	5.202	10.2	10.8	2.14	6698	0.84	21912.38
007176268-02	OBS	No	51.204386	153.350435	106.5	3.823	12.4	4.7	2.14	6698	2.52	87.55
007176268-03	OBS	No	79.682941	165.313349	234.5	3.218	11.6	9.4	2.14	6698	3.77	48.55
007176268-04	OBS	No	102.901731	181.369342	163.1	3.825	12.8	8.5	2.14	6698	3.13	34.52
007176268-05	OBS	No	77.880572	171.840913	124.3	8.625	11.2	5.9	2.14	6698	2.76	50.05
007176268-06	OBS	No	174.110248	213.867569	311.3	7.376	11.3	9.7	2.14	6698	7.27	17.12
007176268-07	OBS	No	79.596048	135.056846	103.3	5.051	9.8	4.1	2.14	6698	2.48	48.62
007176268-08	OBS	No	518.428552	304.103724	317.1	7.383	8.8	9.1	2.14	6698	4.44	4.00
007176268-09	OBS	No	58.906583	179.024332	178.2	3.792	7.3	7.4	2.14	6698	4.51	72.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007176268-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007176268-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007176268-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007176268-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007176268-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_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.

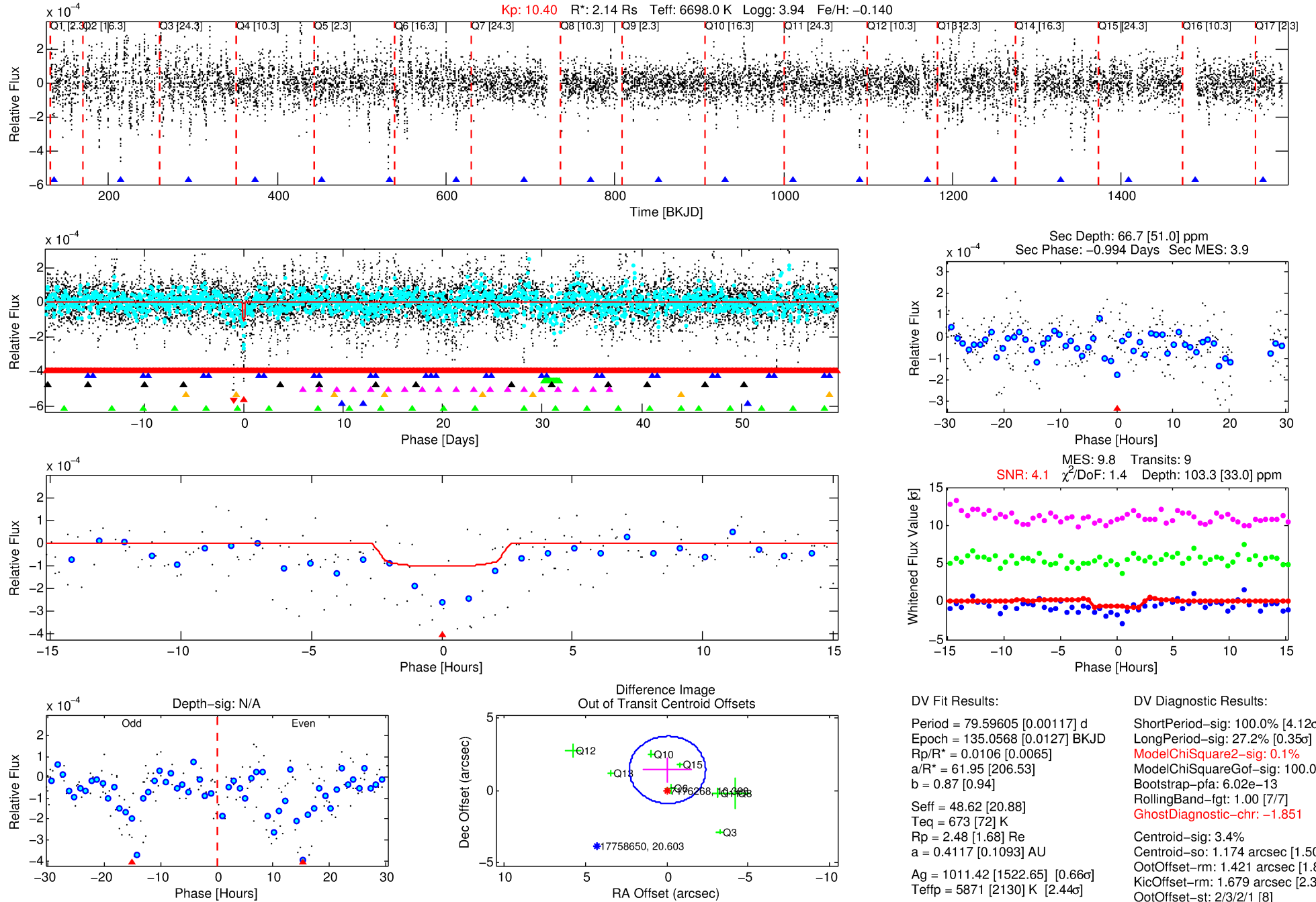
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007176268-07

No Significant Match Found

DV One-Page Summary

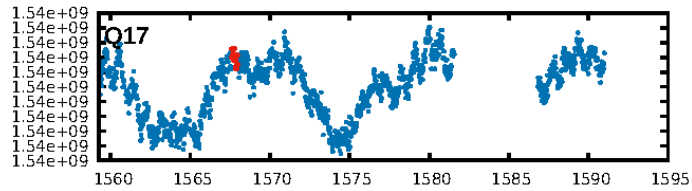
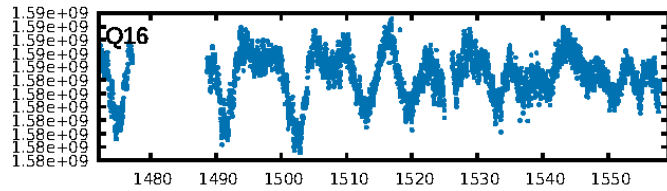
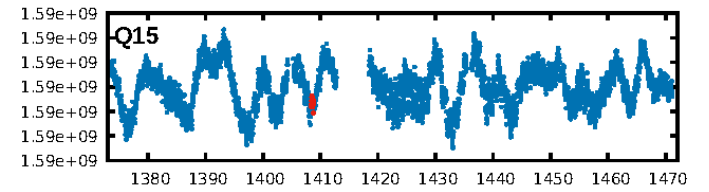
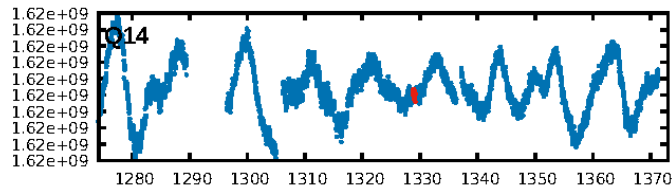
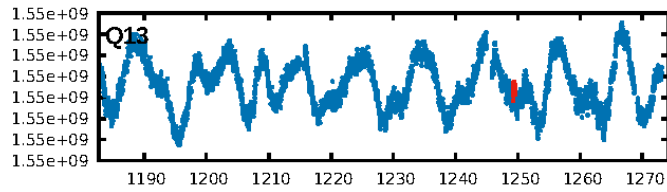
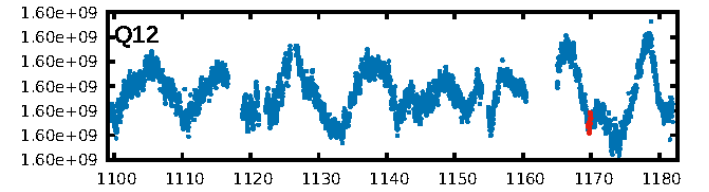
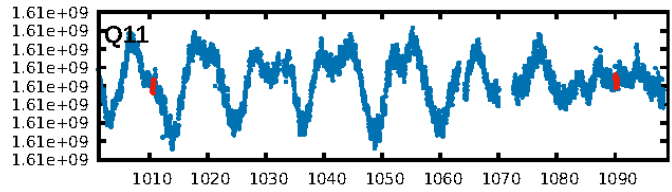
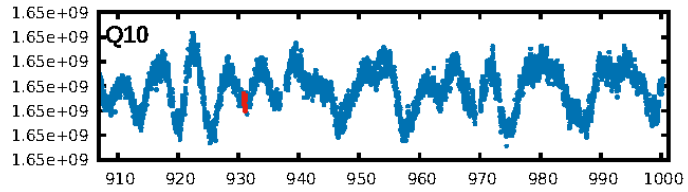
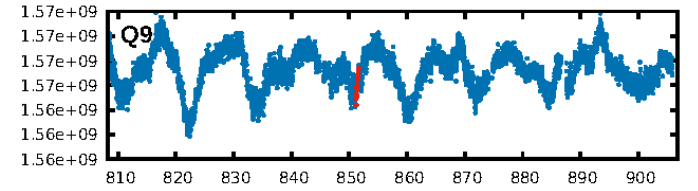
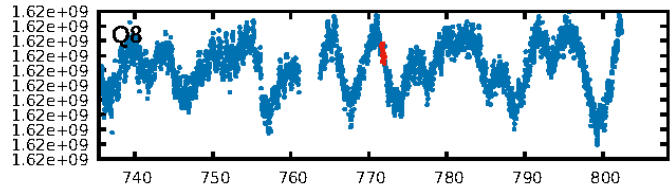
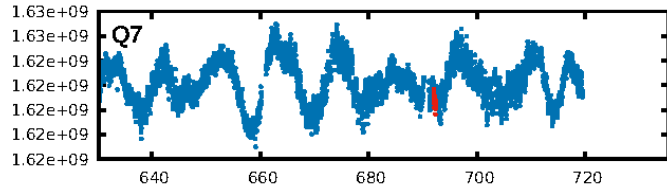
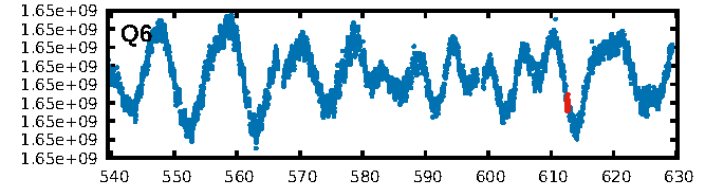
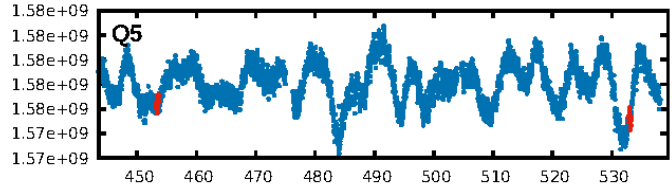
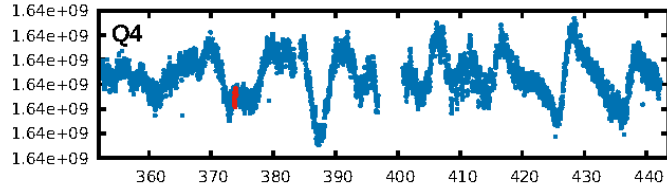
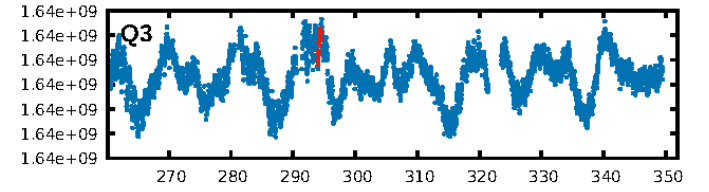
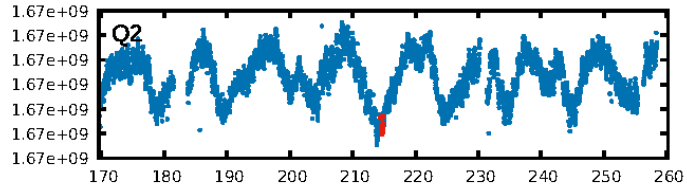
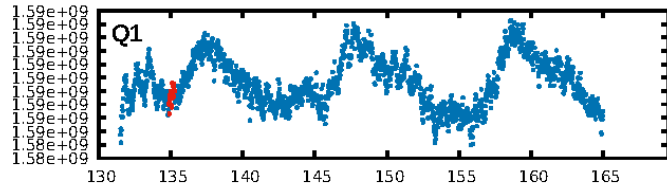
KIC: 7176268 Candidate: 7 of 9 Period: 79.596 d



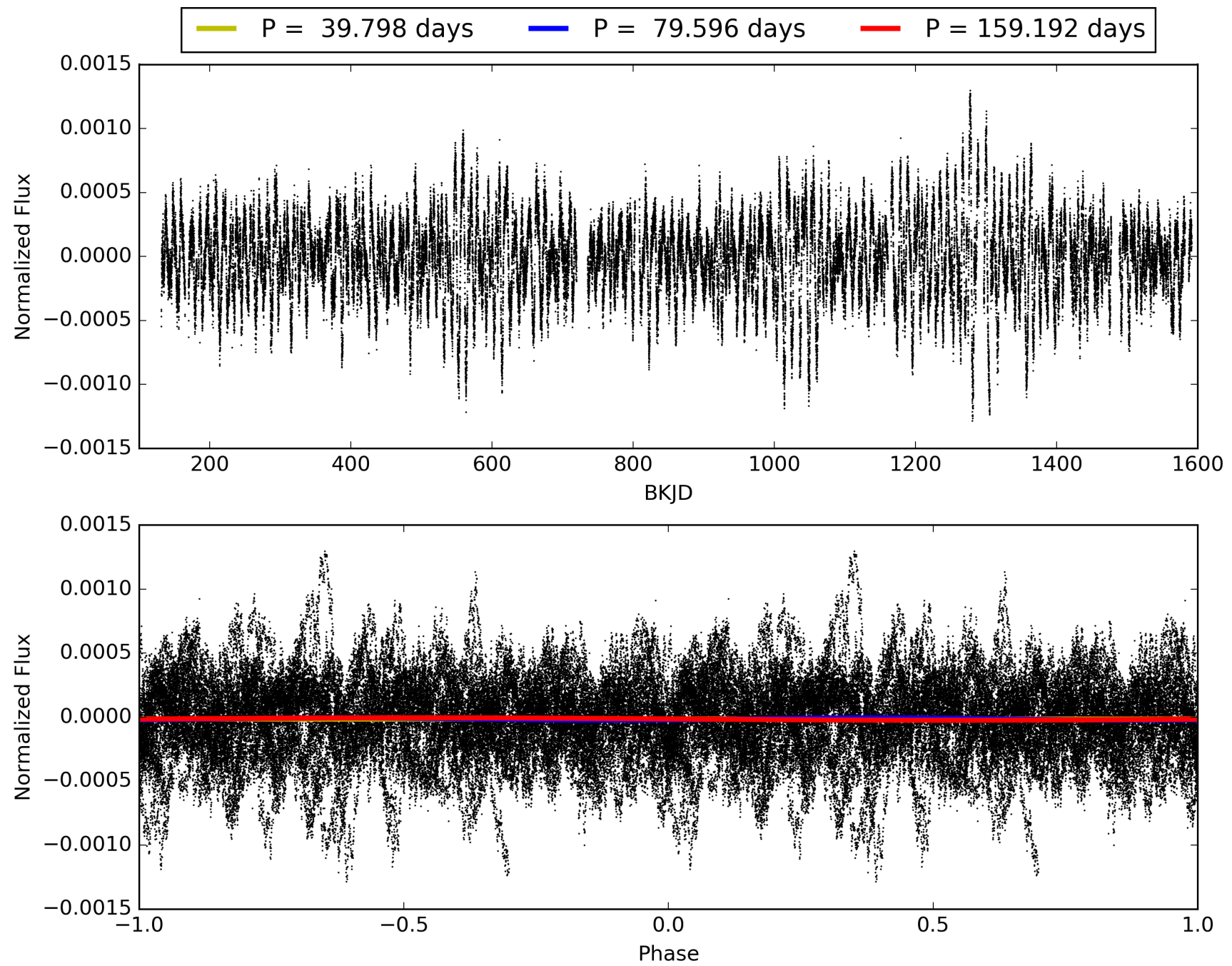
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 01:50:09 Z

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

TCE 007176268-07, PDC Light Curves

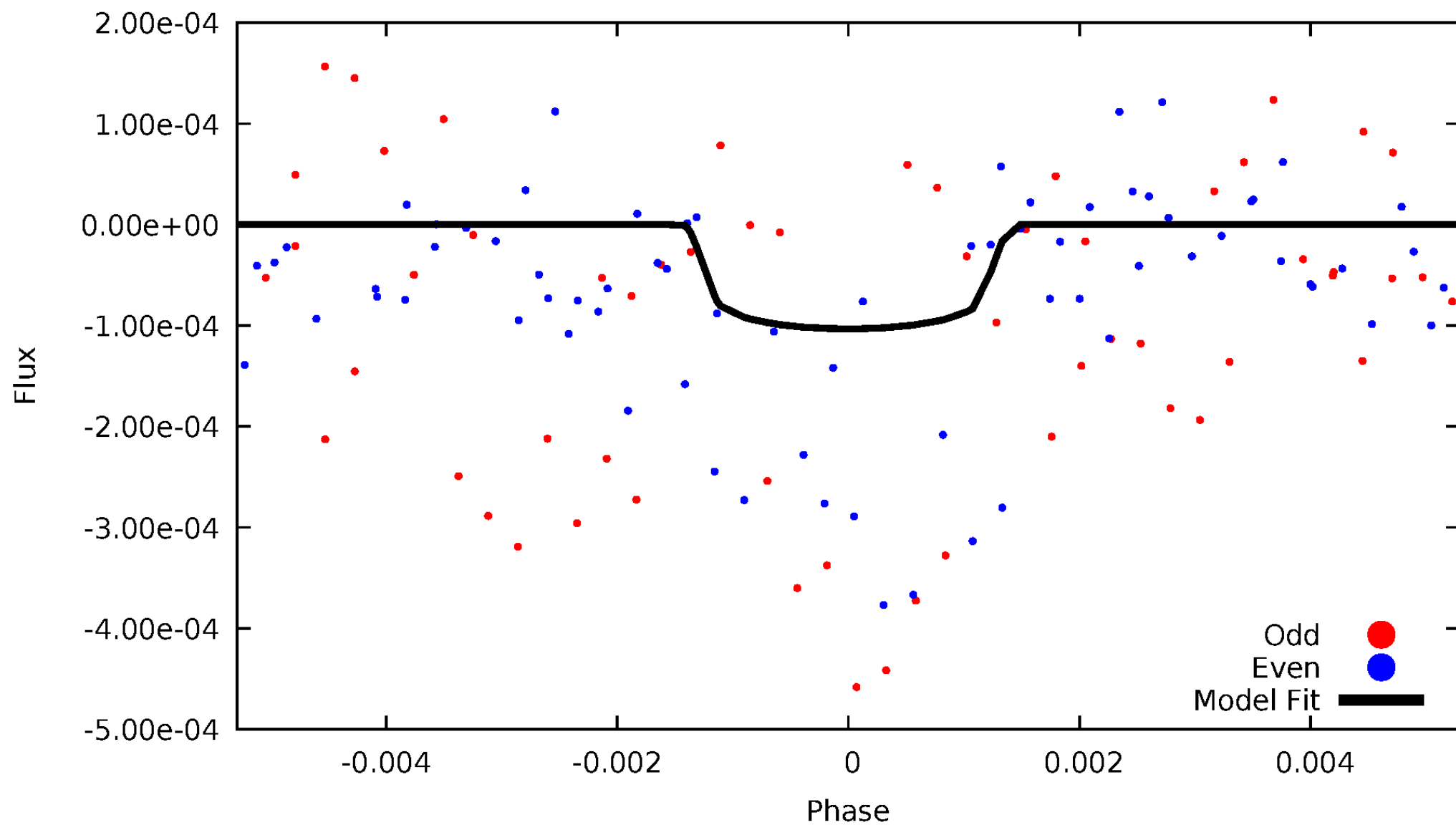


TCE 007176268-07



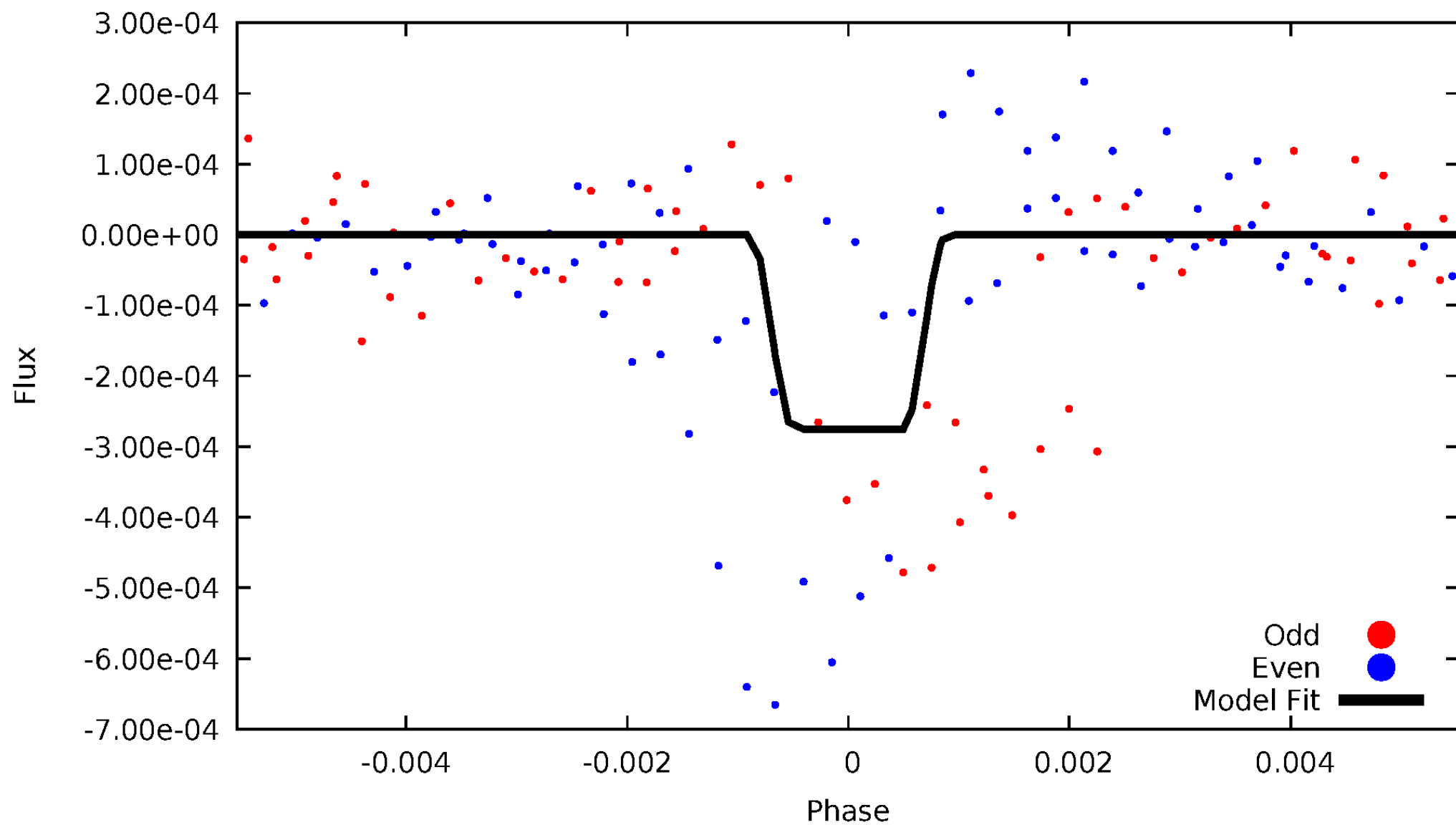
DV Odd/Even

TCE 007176268-07



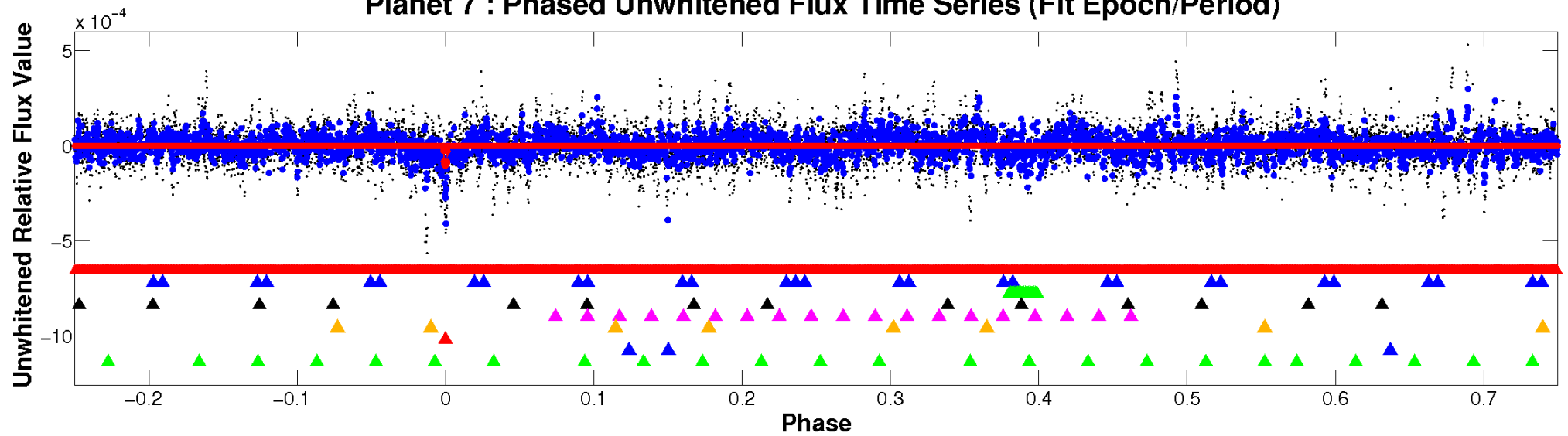
ALT Odd/Even

TCE 007176268-07

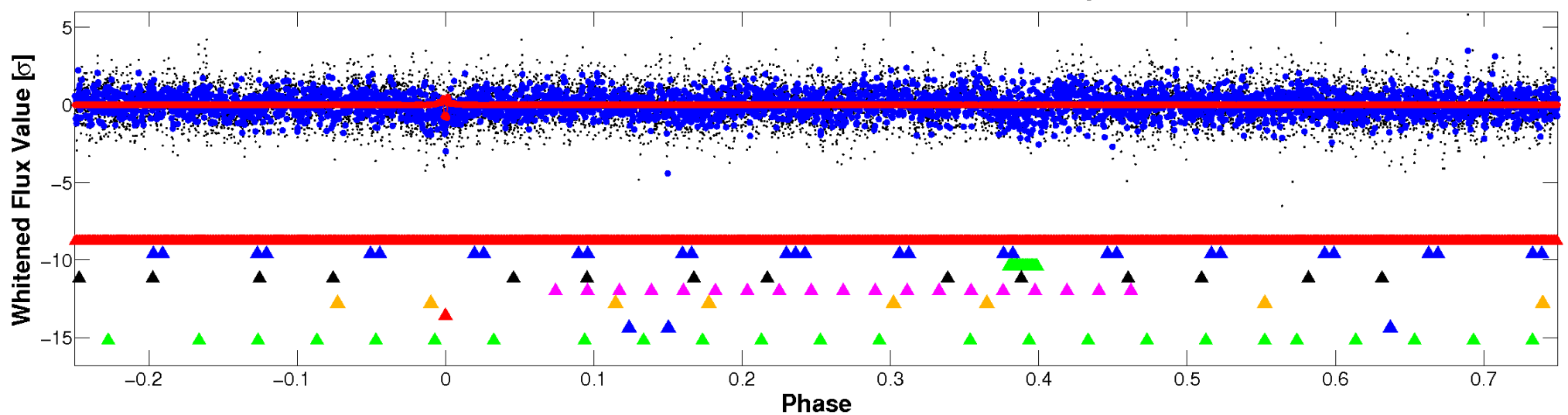


Non-Whitened Vs. Whitened Light Curve

Planet 7 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

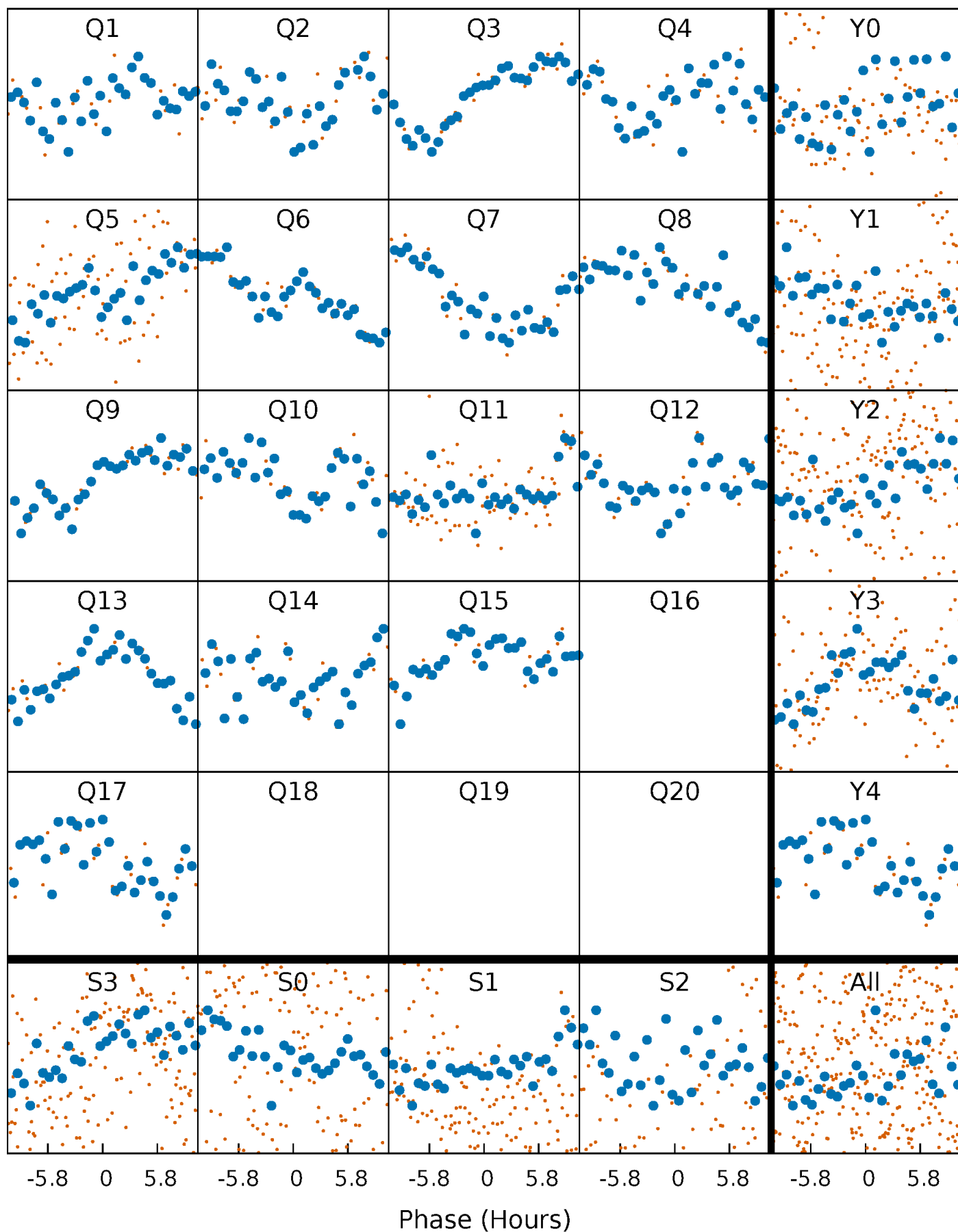


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



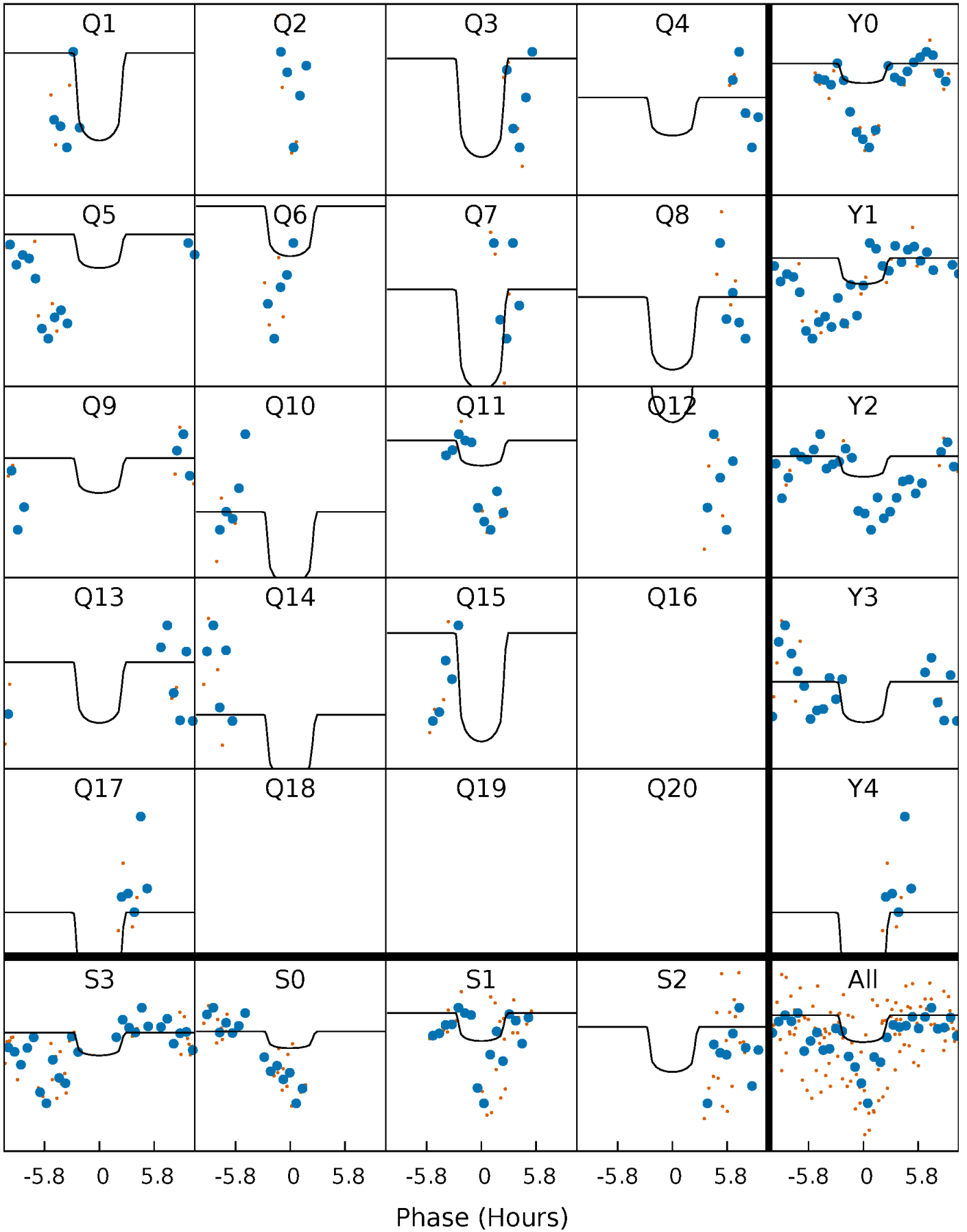
PDC Quarter-Phased Transit Curves

TCE 007176268-07 $P = 79.596048$ Days $T_0 = 135.056846$ (BKJD)



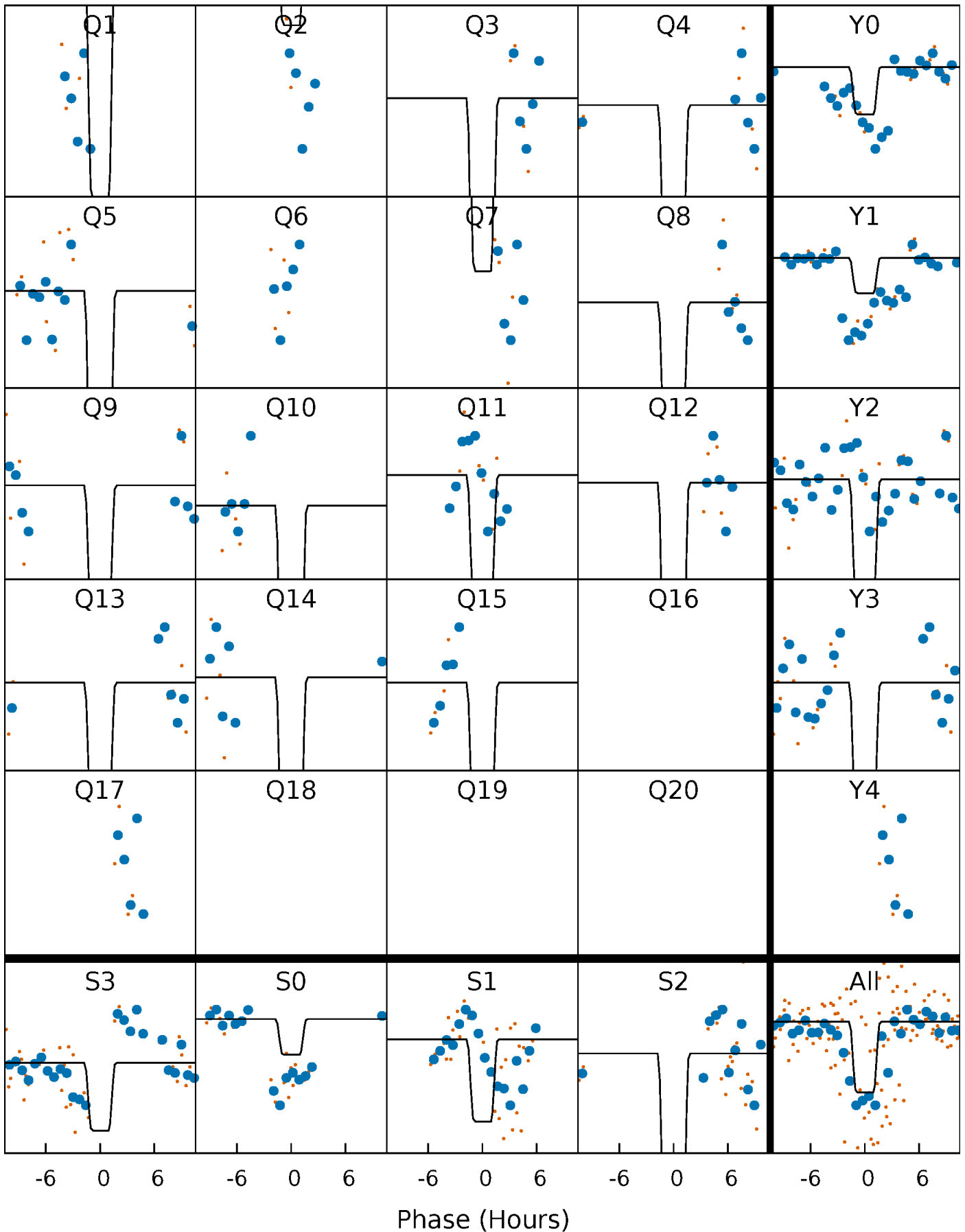
DV Quarter-Phased Transit Curves

TCE 007176268-07 P= 79.596048 Days $T_0=135.056846$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

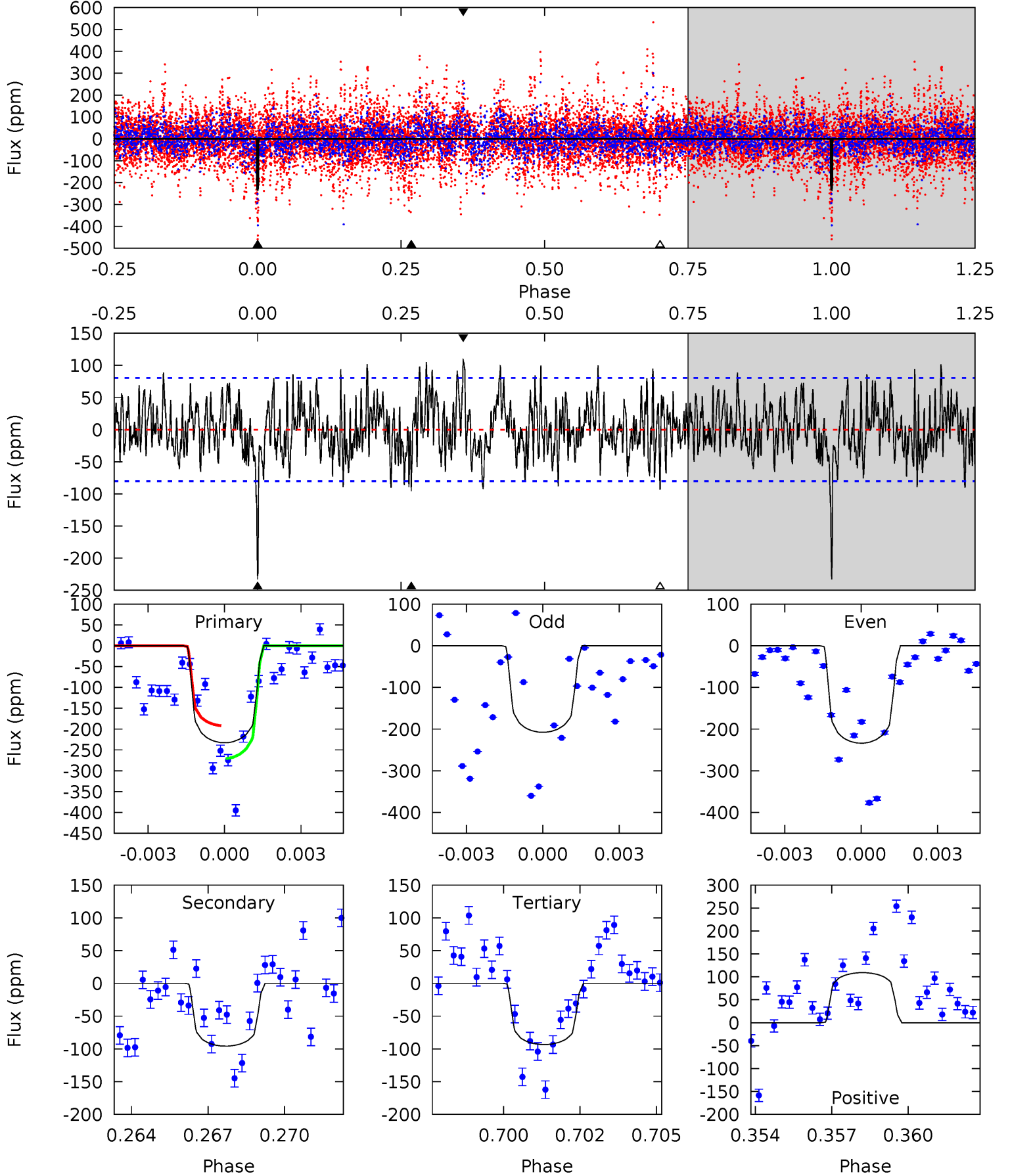
TCE 007176268-07 $P = 79.599038$ Days $T_0 = 135.019869$ (BKJD)



DV Model-Shift Uniqueness Test

007176268-07, P = 79.596048 Days, E = 55.460798 Days

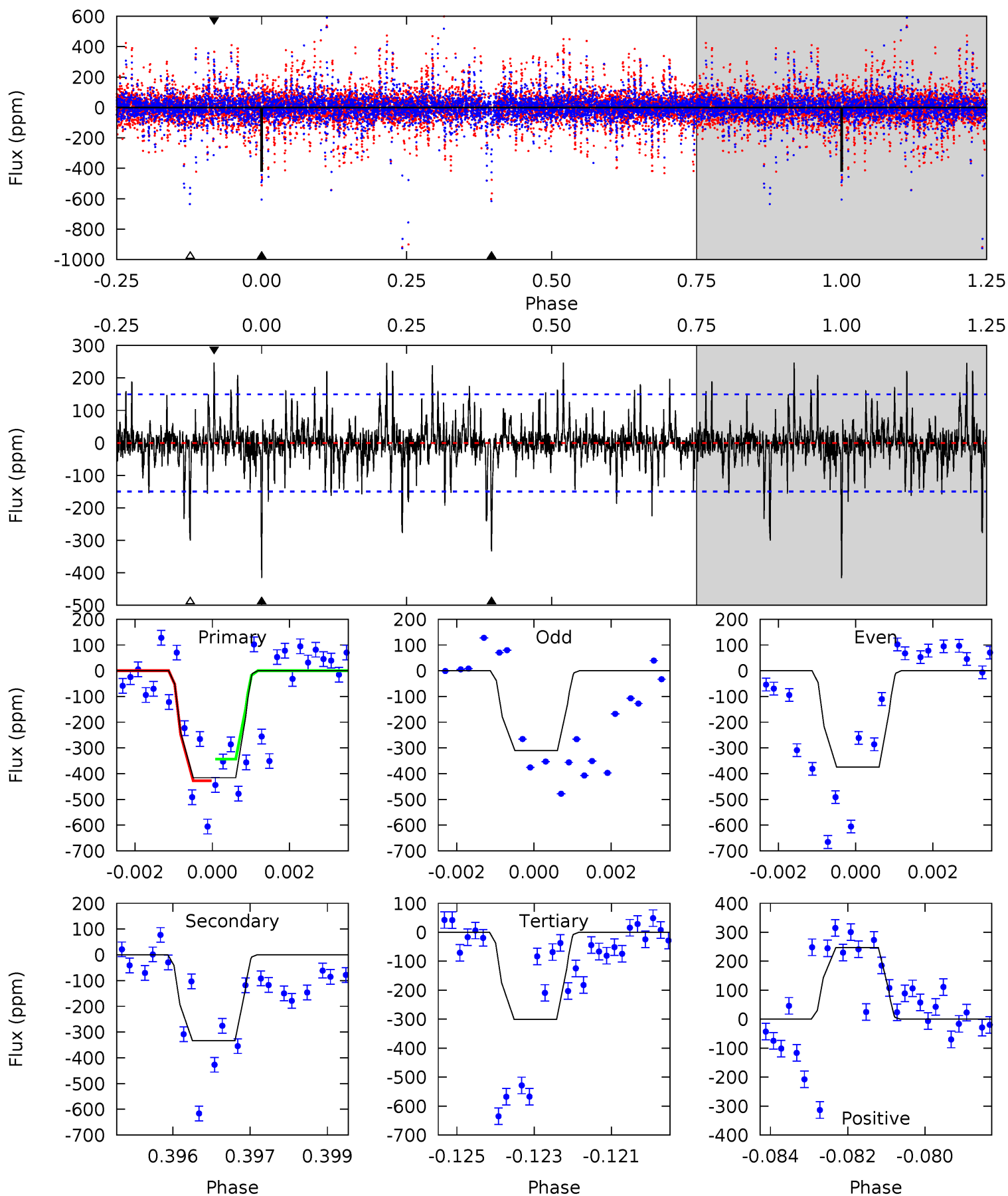
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.2	6.27	6.11	7.14	5.26	2.98	2.29	9.12	8.09	0.16	-0.87	0.85	1.17	0.32	2.58



Alt Model-Shift Uniqueness Test

007176268-07, P = 79.599038 Days, E = 55.420831 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	12.0	10.8	8.85	5.36	3.15	1.85	4.13	6.04	1.20	3.11	0.94	1.03	0.37	1.45



Stellar Parameters For KIC 007176268

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6698^{+151}_{-184}	$3.945^{+0.240}_{-0.129}$	$-0.140^{+0.300}_{-0.250}$	$2.138^{+0.501}_{-0.613}$	$1.469^{+0.186}_{-0.256}$	$0.212^{+0.314}_{-0.082}$
	+2%/-3%	+6%/-3%	+214%/-179%	+23%/-29%	+13%/-17%	+148%/-39%
Source	PHO1	FLK73	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 007176268-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-96 ± 15	$2.46^{+1.61}_{-1.36}$	926^{+59}_{-69}	6223^{+4059}_{-1207}	1438^{+5837}_{-900}
Alt.	-334 ± 28	$3.65^{+1.60}_{-1.55}$	928^{+56}_{-76}	7116^{+3010}_{-1166}	2340^{+4582}_{-1214}

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 $A_{obs} \gg 1.0$

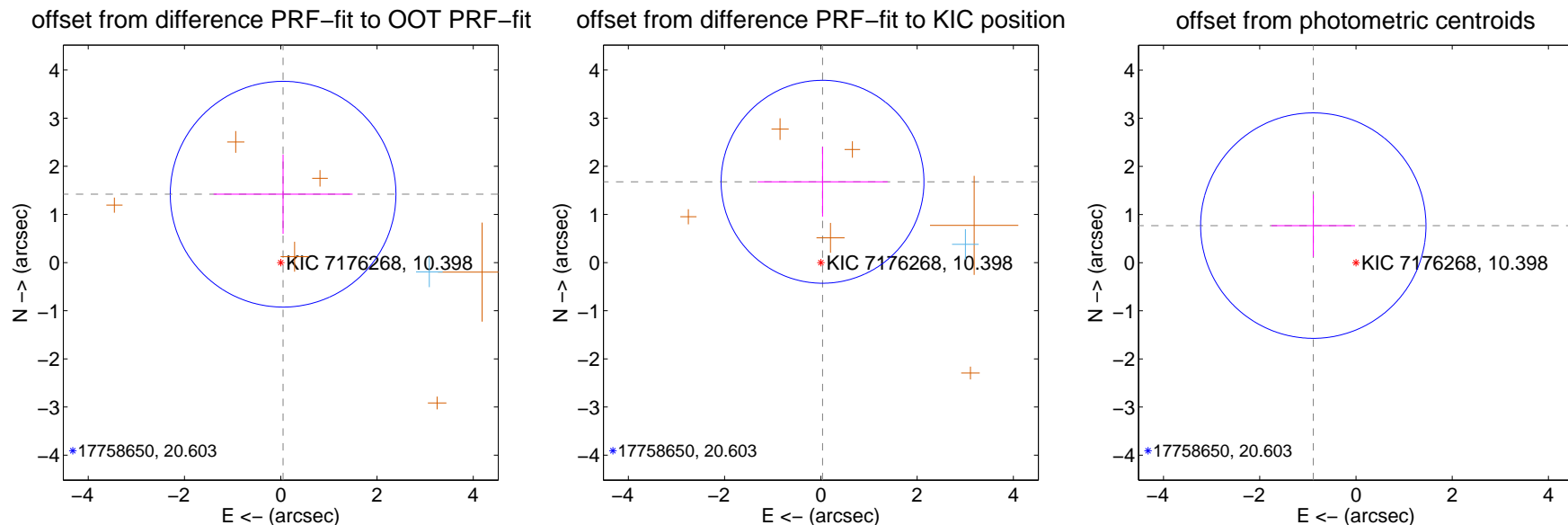
DV Centroid Data

Supplemental centroid analysis for 007176268-07. **Kepler magnitude: 10.40.** Transit SNR 4.11

There are 1 quarters with good PRF difference image offsets

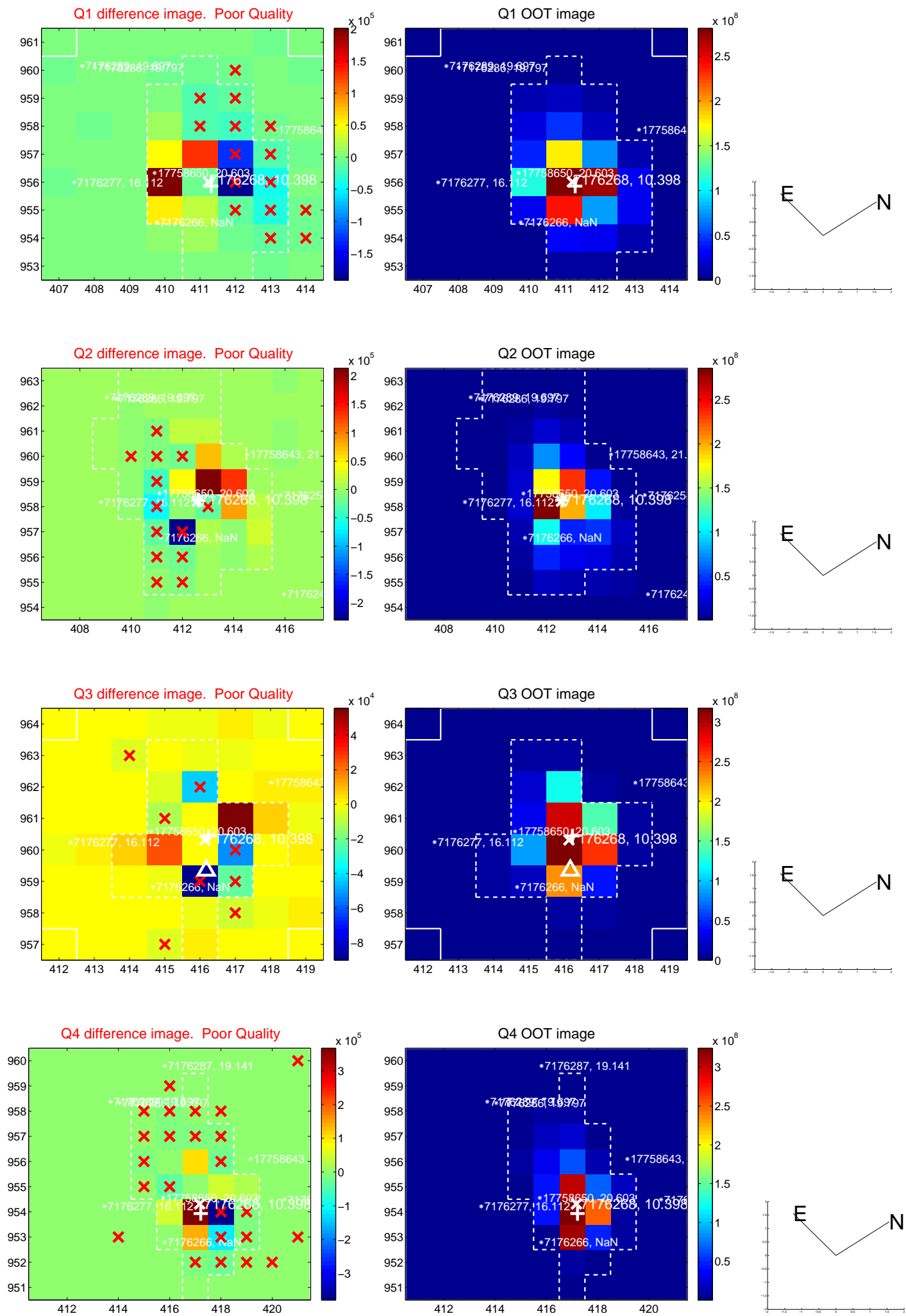
The direct PRF centroid is offset from the target star catalog position by about 0.62 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.421 ± 0.782	1.82	-0.049 ± 1.444	1.420 ± 0.822
PRF-fit source offset from KIC position	1.679 ± 0.703	2.39	-0.035 ± 1.351	1.679 ± 0.724
photometric centroid source offset	1.17 ± 0.78	1.50	0.89 ± 0.87	0.77 ± 0.64

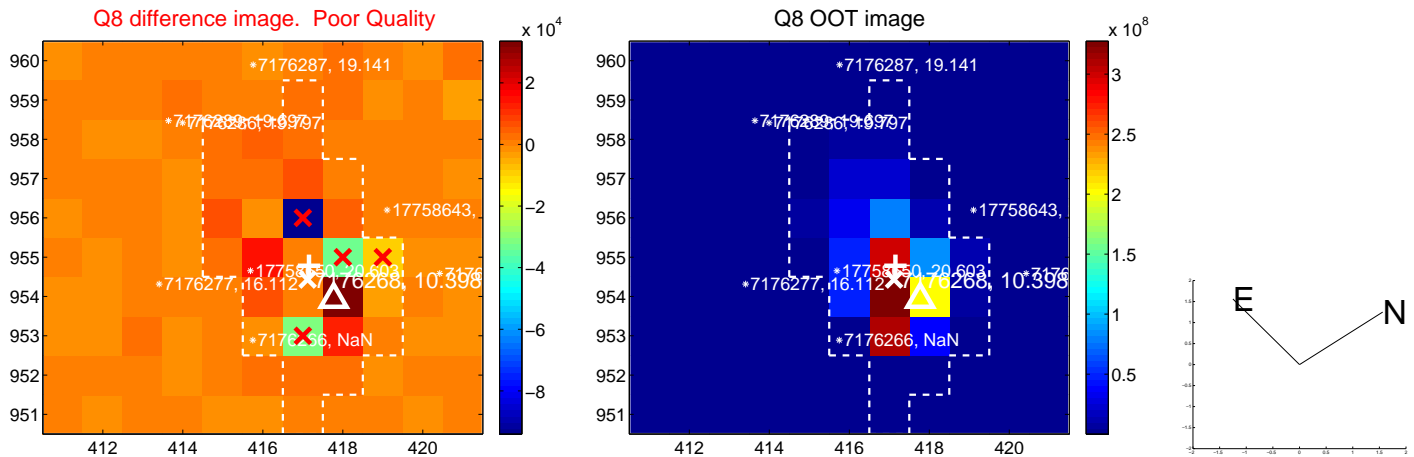
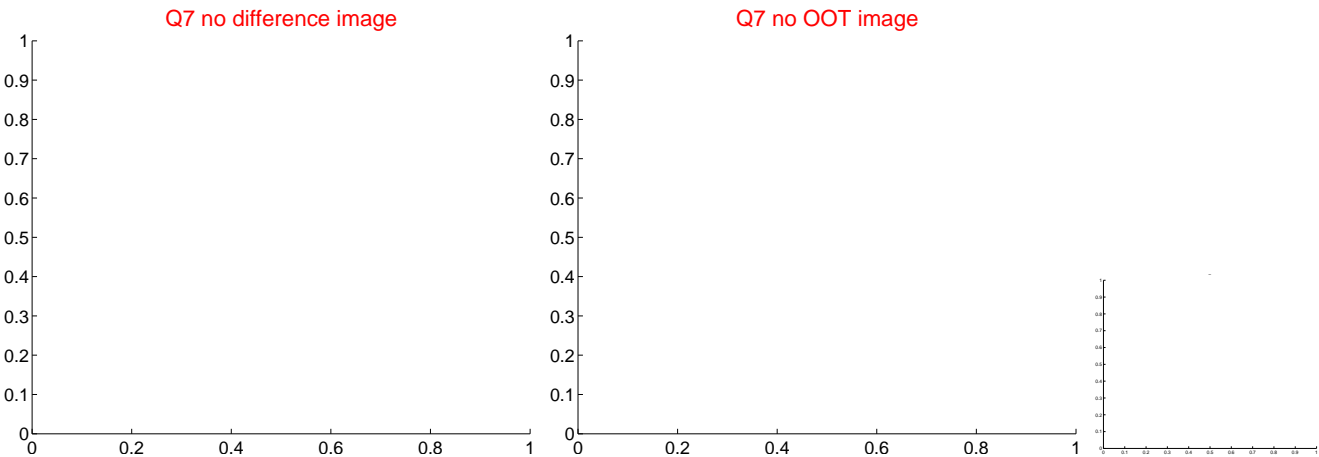
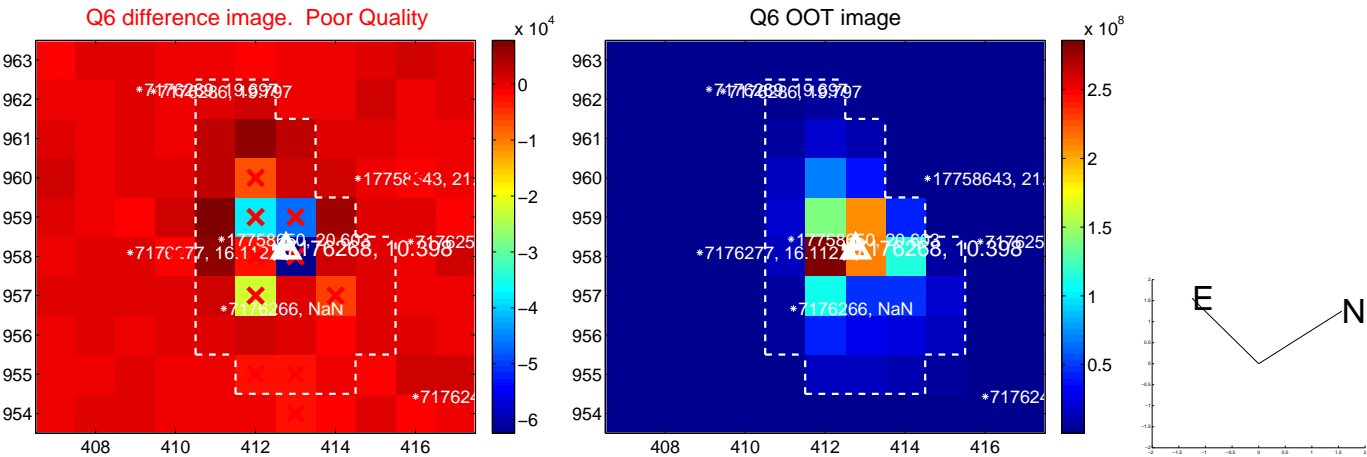
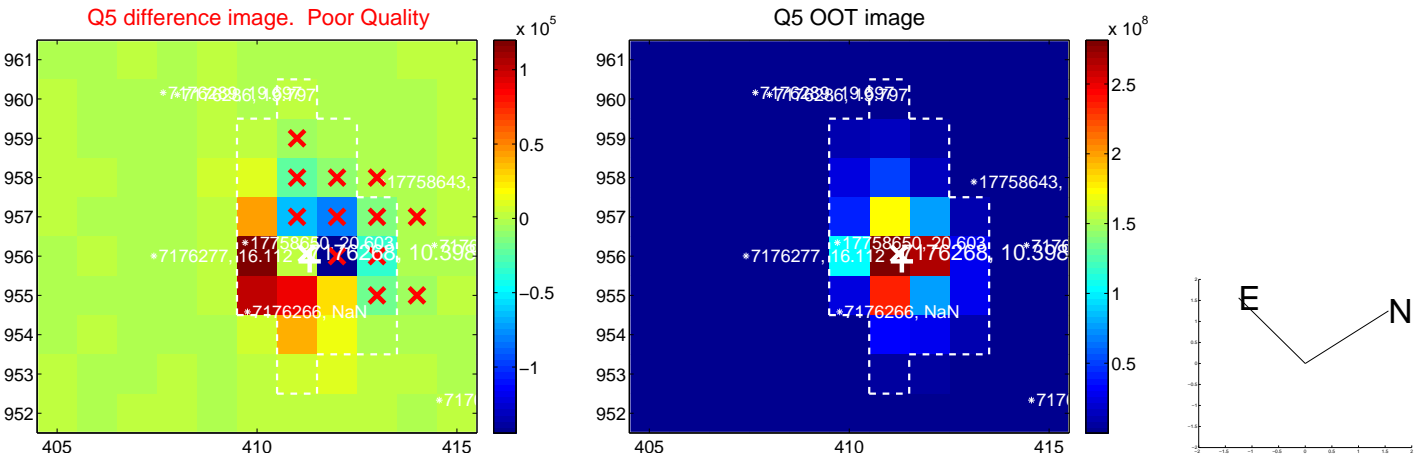


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

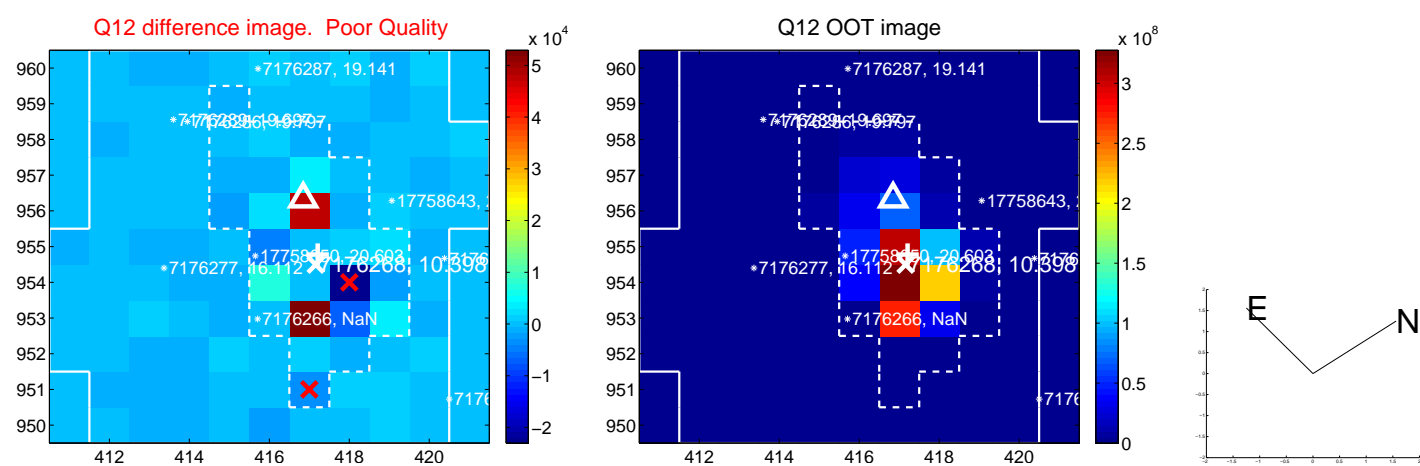
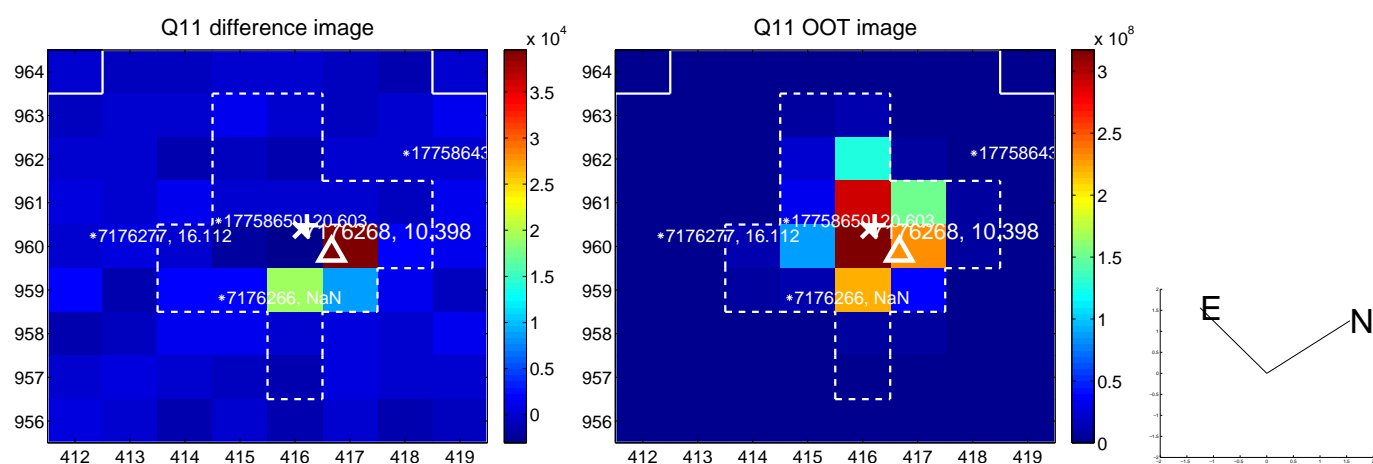
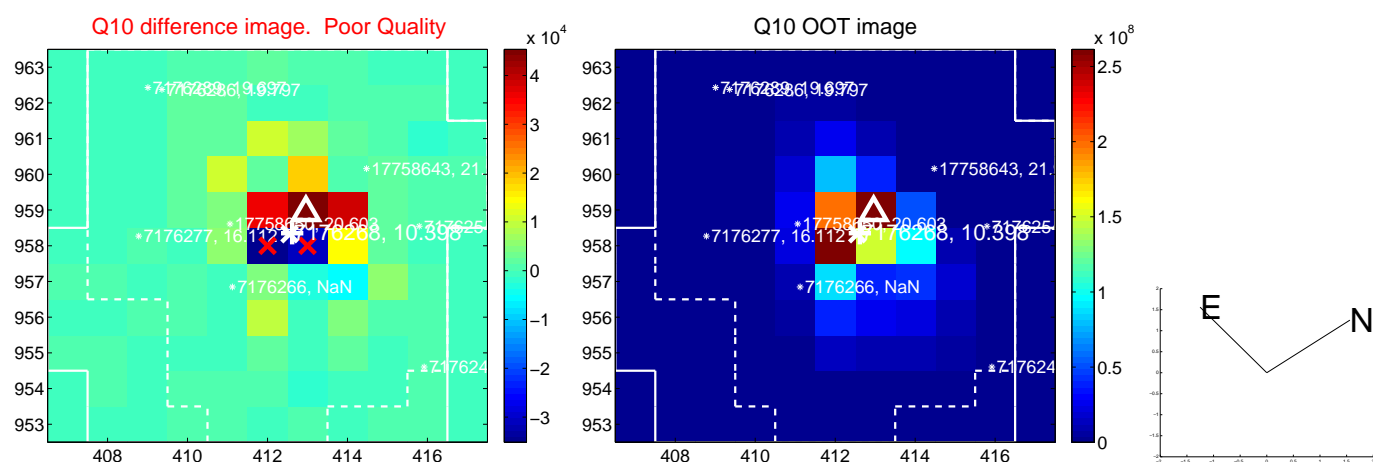
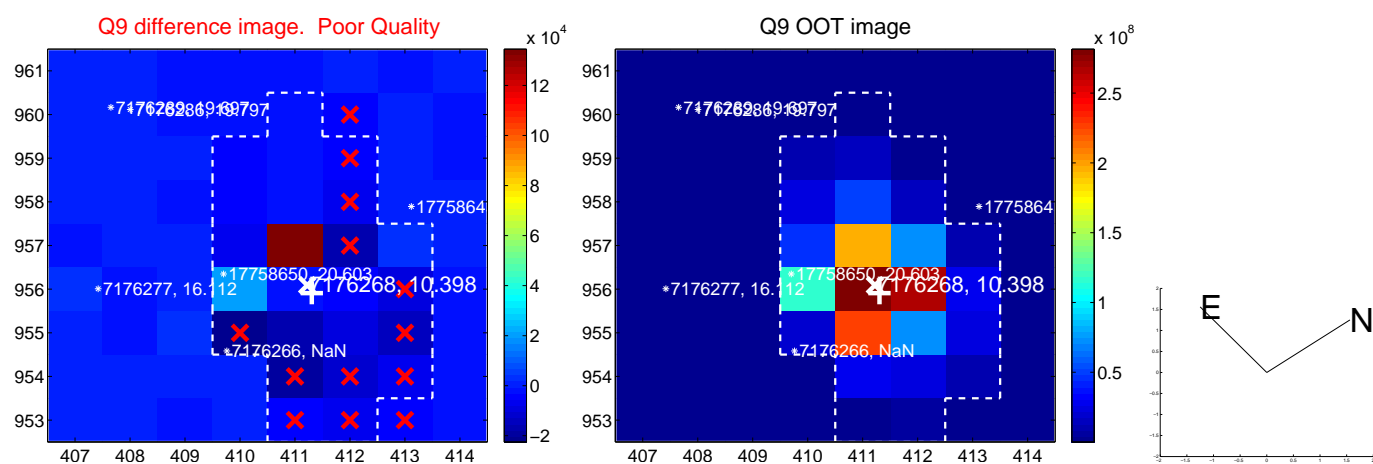
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



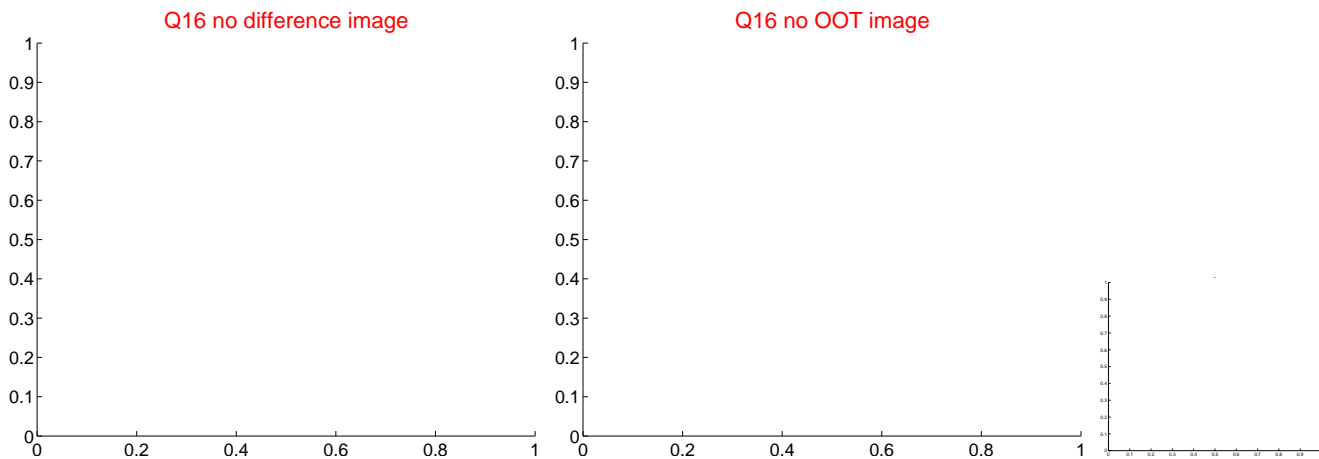
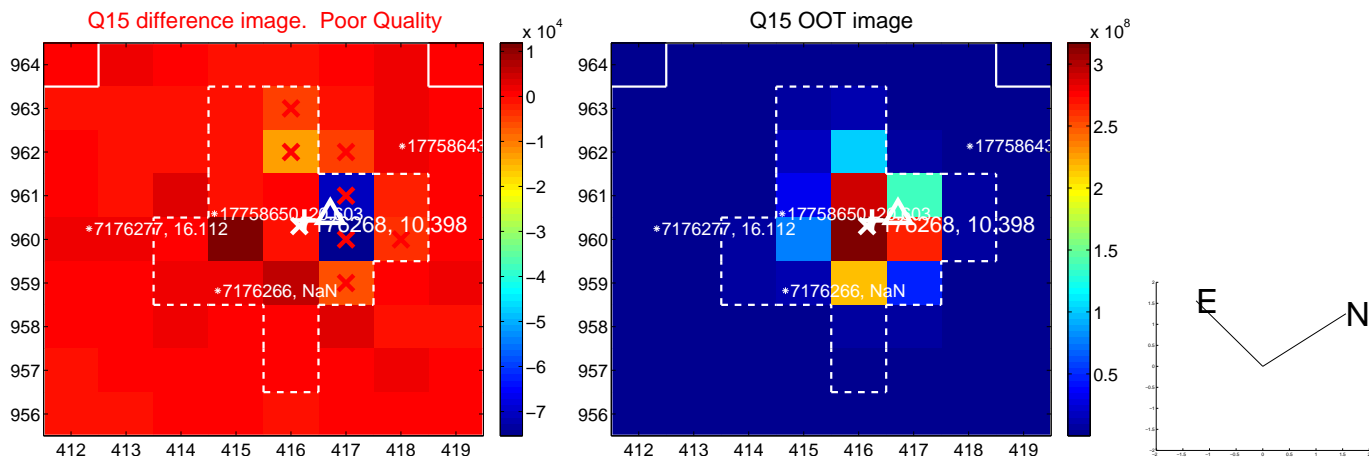
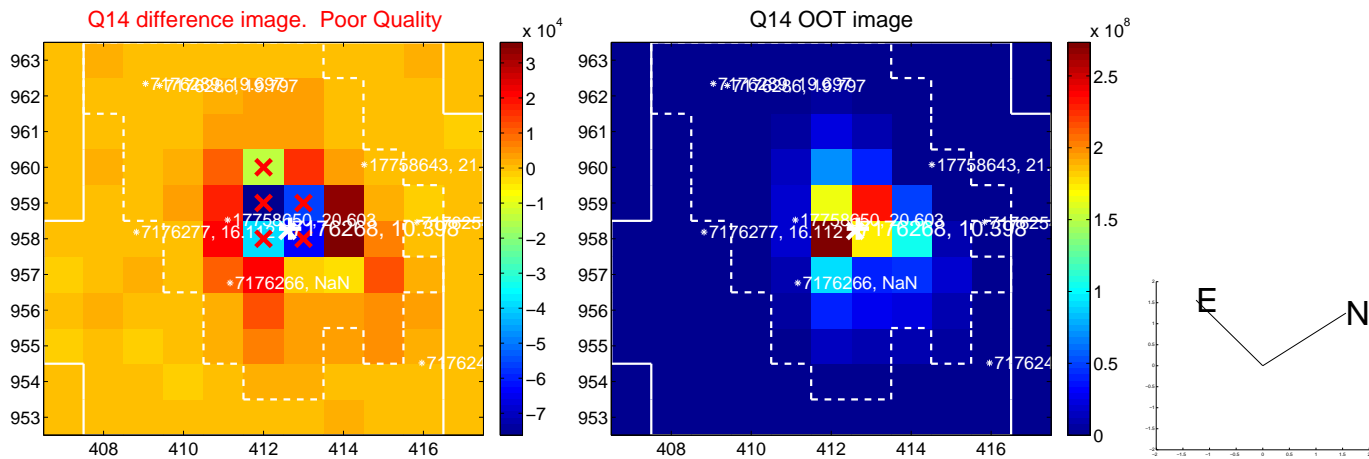
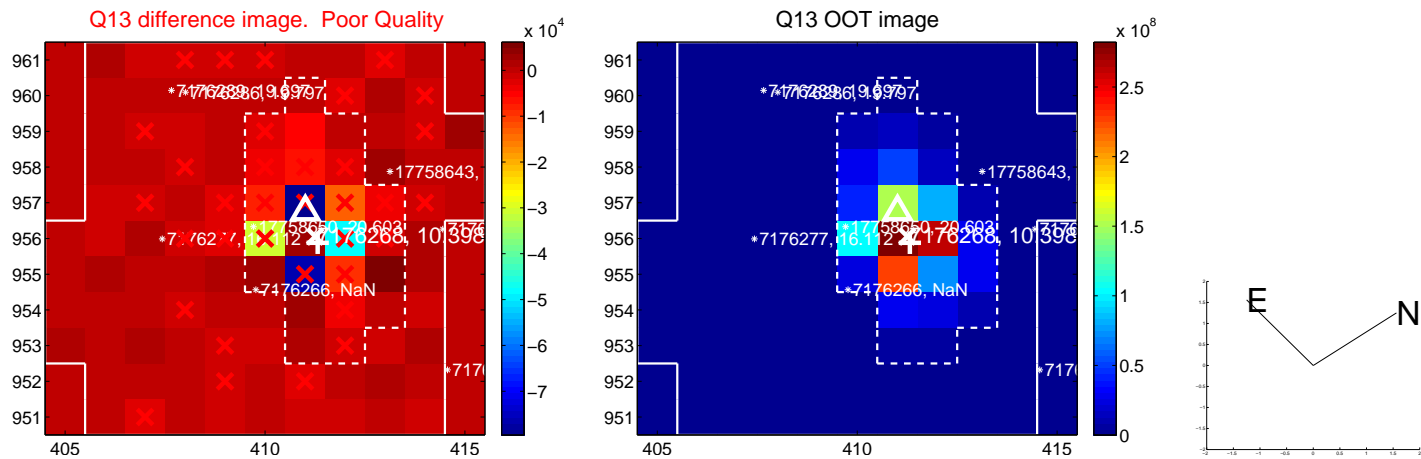
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



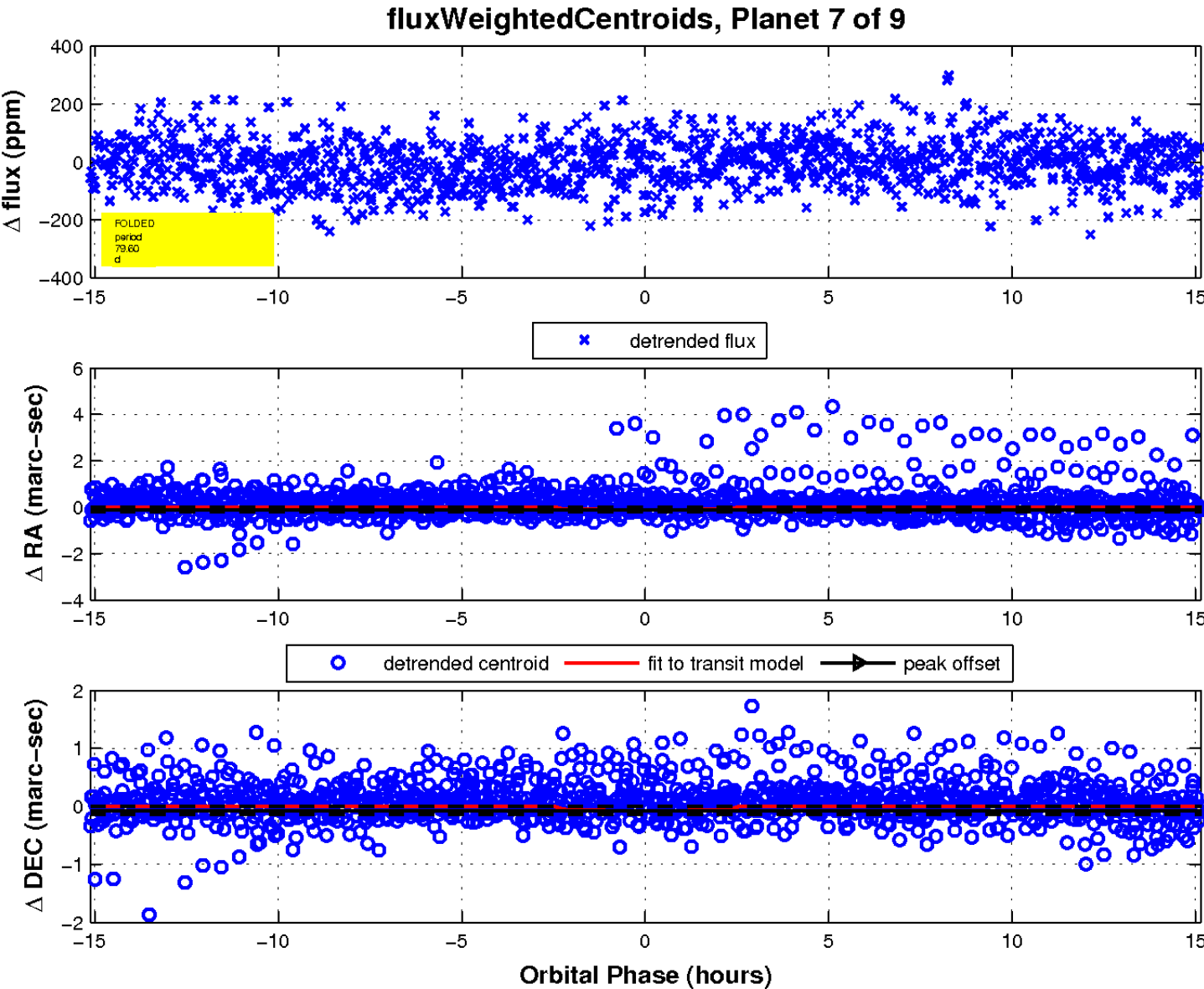
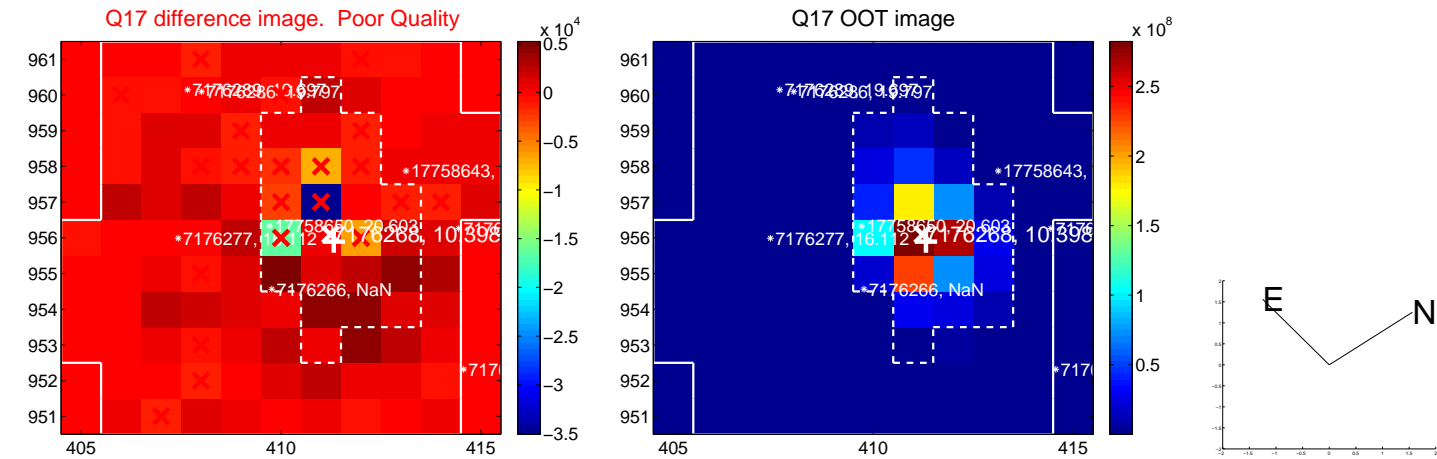
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

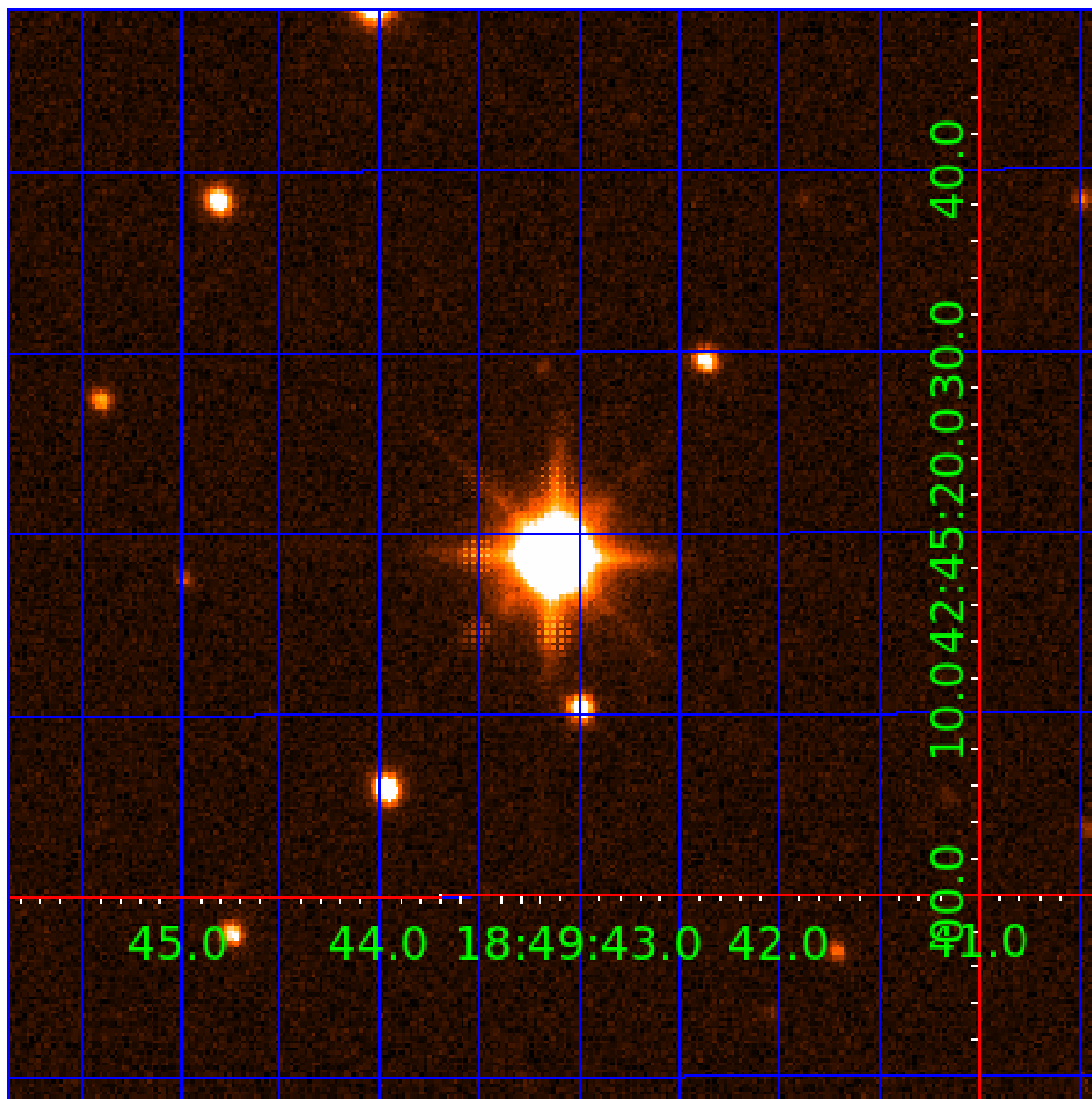


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007176268

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})
007176268-01	OBS	No	0.813753	132.060153	12.8	5.202	10.2	10.8	2.14	6698	0.84	21912.38
007176268-02	OBS	No	51.204386	153.350435	106.5	3.823	12.4	4.7	2.14	6698	2.52	87.55
007176268-03	OBS	No	79.682941	165.313349	234.5	3.218	11.6	9.4	2.14	6698	3.77	48.55
007176268-04	OBS	No	102.901731	181.369342	163.1	3.825	12.8	8.5	2.14	6698	3.13	34.52
007176268-05	OBS	No	77.880572	171.840913	124.3	8.625	11.2	5.9	2.14	6698	2.76	50.05
007176268-06	OBS	No	174.110248	213.867569	311.3	7.376	11.3	9.7	2.14	6698	7.27	17.12
007176268-07	OBS	No	79.596048	135.056846	103.3	5.051	9.8	4.1	2.14	6698	2.48	48.62
007176268-08	OBS	No	518.428552	304.103724	317.1	7.383	8.8	9.1	2.14	6698	4.44	4.00
007176268-09	OBS	No	58.906583	179.024332	178.2	3.792	7.3	7.4	2.14	6698	4.51	72.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007176268-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007176268-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007176268-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007176268-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007176268-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_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.

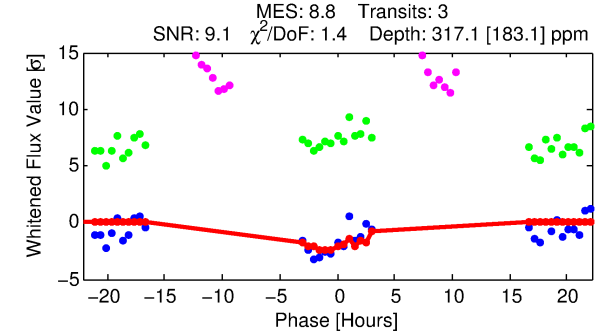
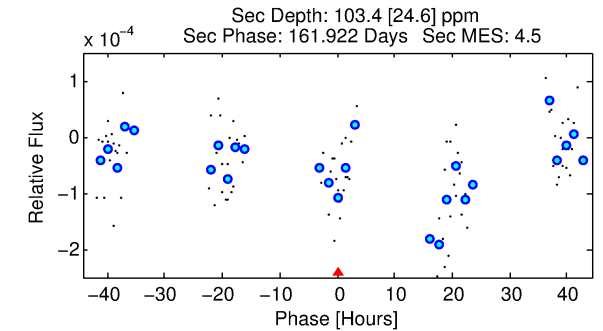
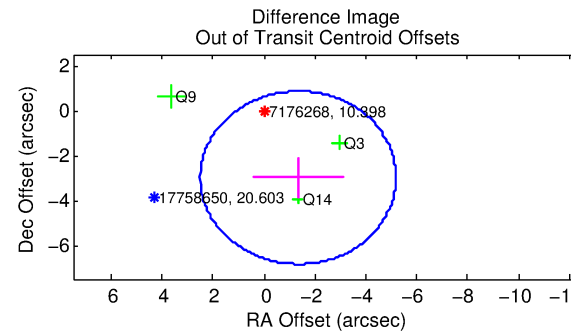
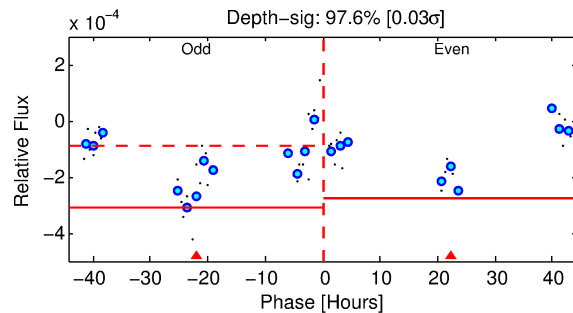
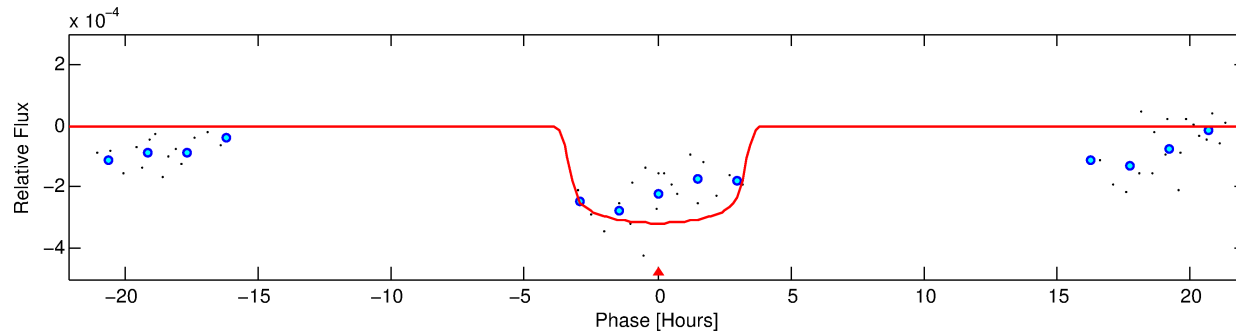
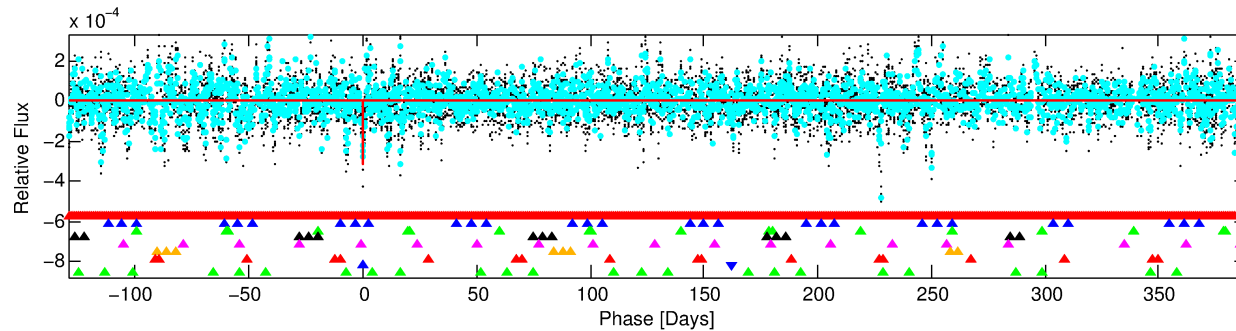
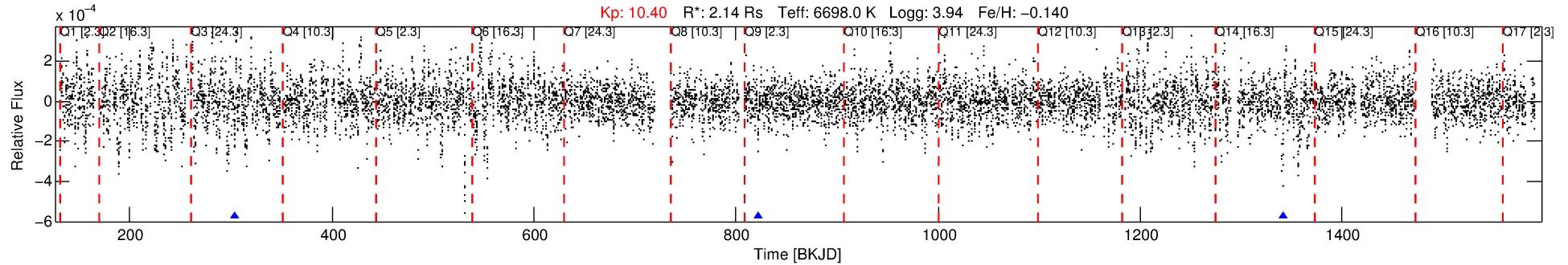
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007176268-08

No Significant Match Found

DV One-Page Summary

KIC: 7176268 Candidate: 8 of 9 Period: 518.429 d



DV Fit Results:

Period = 518.42855 [0.21755] d
Epoch = 304.1037 [0.1926] BKJD
Rp/R* = 0.0190 [0.0361]
a/R* = 255.39 [2874.70]
b = 0.90 [2.34]
Seff = 4.00 [1.72]
Teq = 361 [39] K
Rp = 4.44 [8.52] Re
a = 1.4360 [0.3812] AU
Ag = 5948.93 [22751.53] [0.26 σ]
Teffp = 4896 [4655] K [0.97 σ]

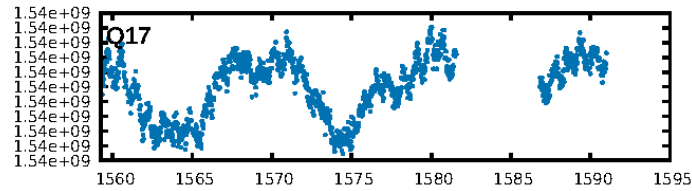
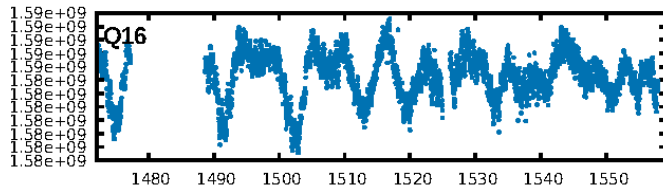
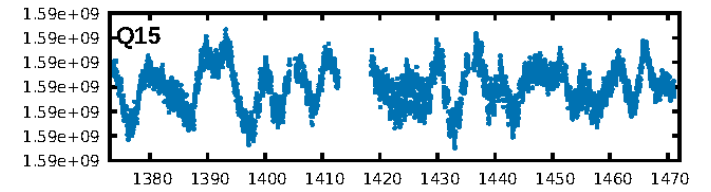
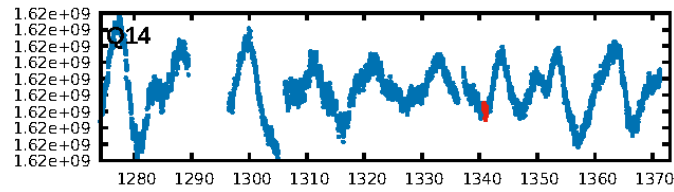
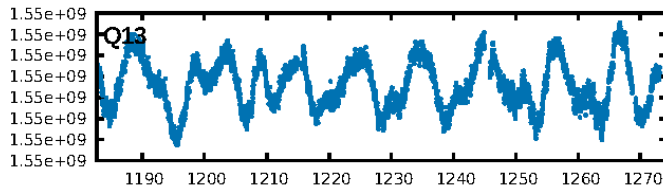
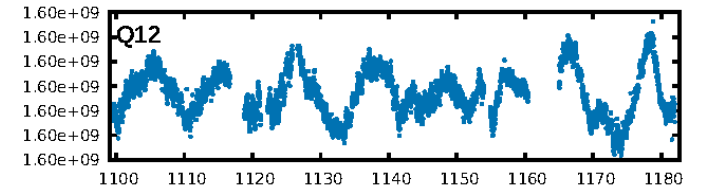
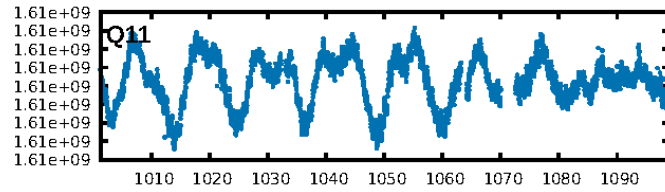
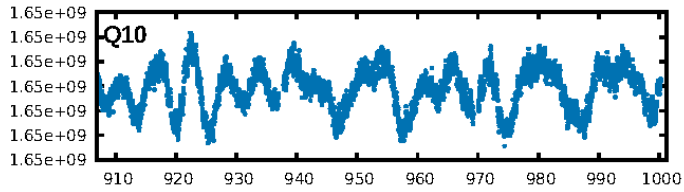
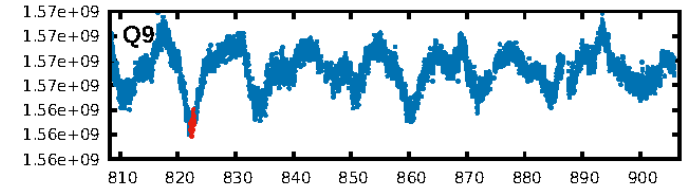
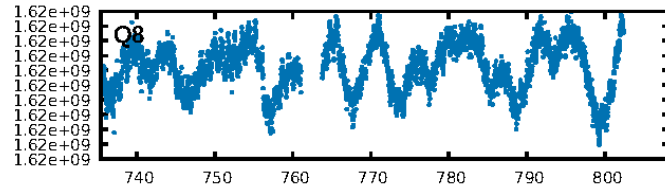
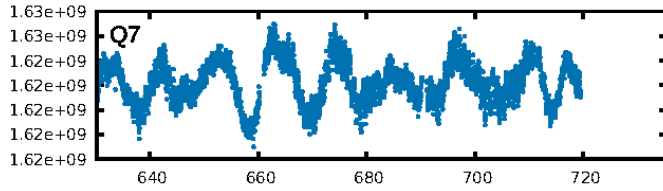
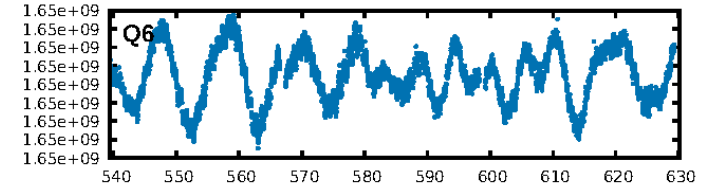
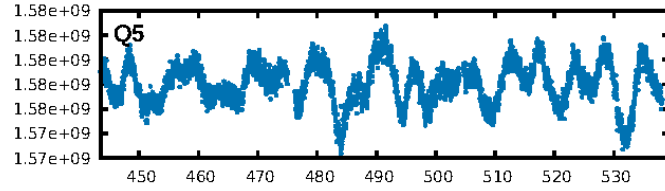
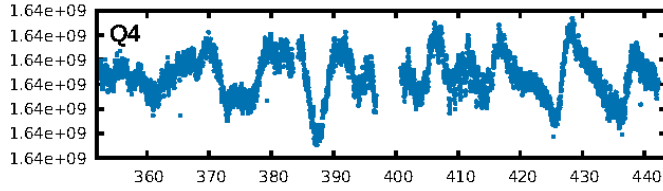
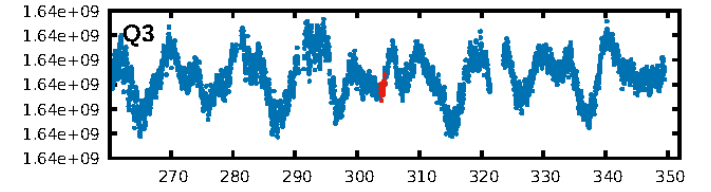
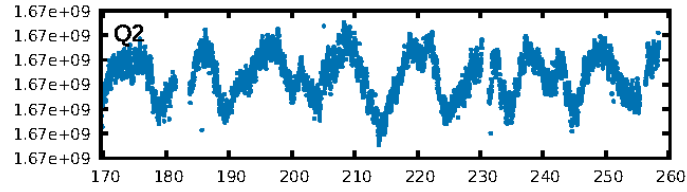
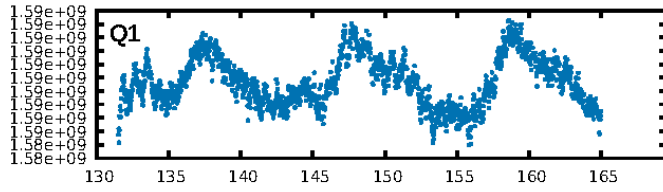
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [791.84 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 4.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 7.17e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -2.566
Centroid-sig: 89.6%
Centroid-so: 0.221 arcsec [0.32 σ]
OotOffset-rm: 3.278 arcsec [2.55 σ]
KicOffset-rm: 2.901 arcsec [2.42 σ]
OotOffset-st: 1/1/0/1 [3]
KicOffset-st: 1/1/0/1 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 0.00 [0/3]

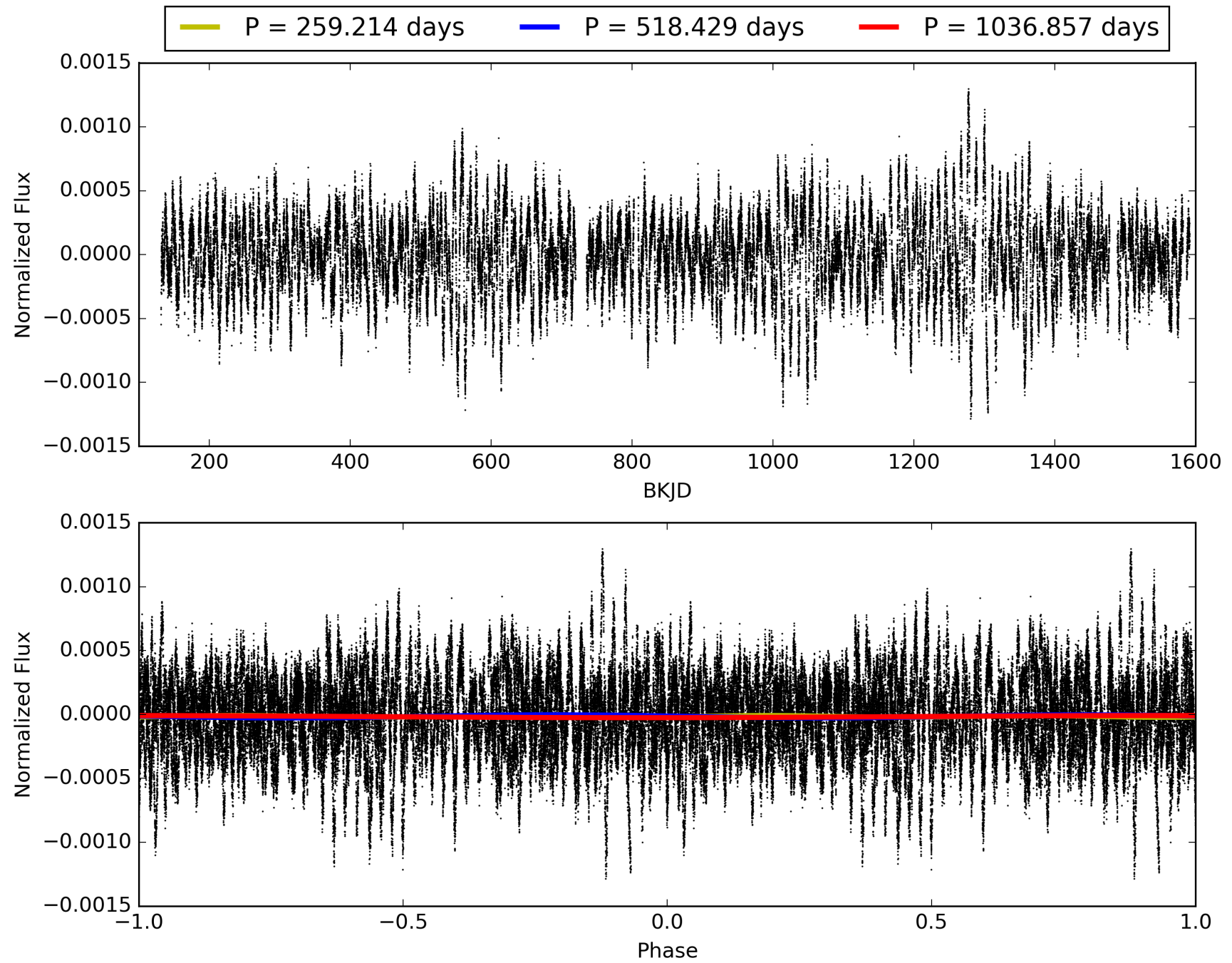
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 01:50:14 Z

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

TCE 007176268-08, PDC Light Curves

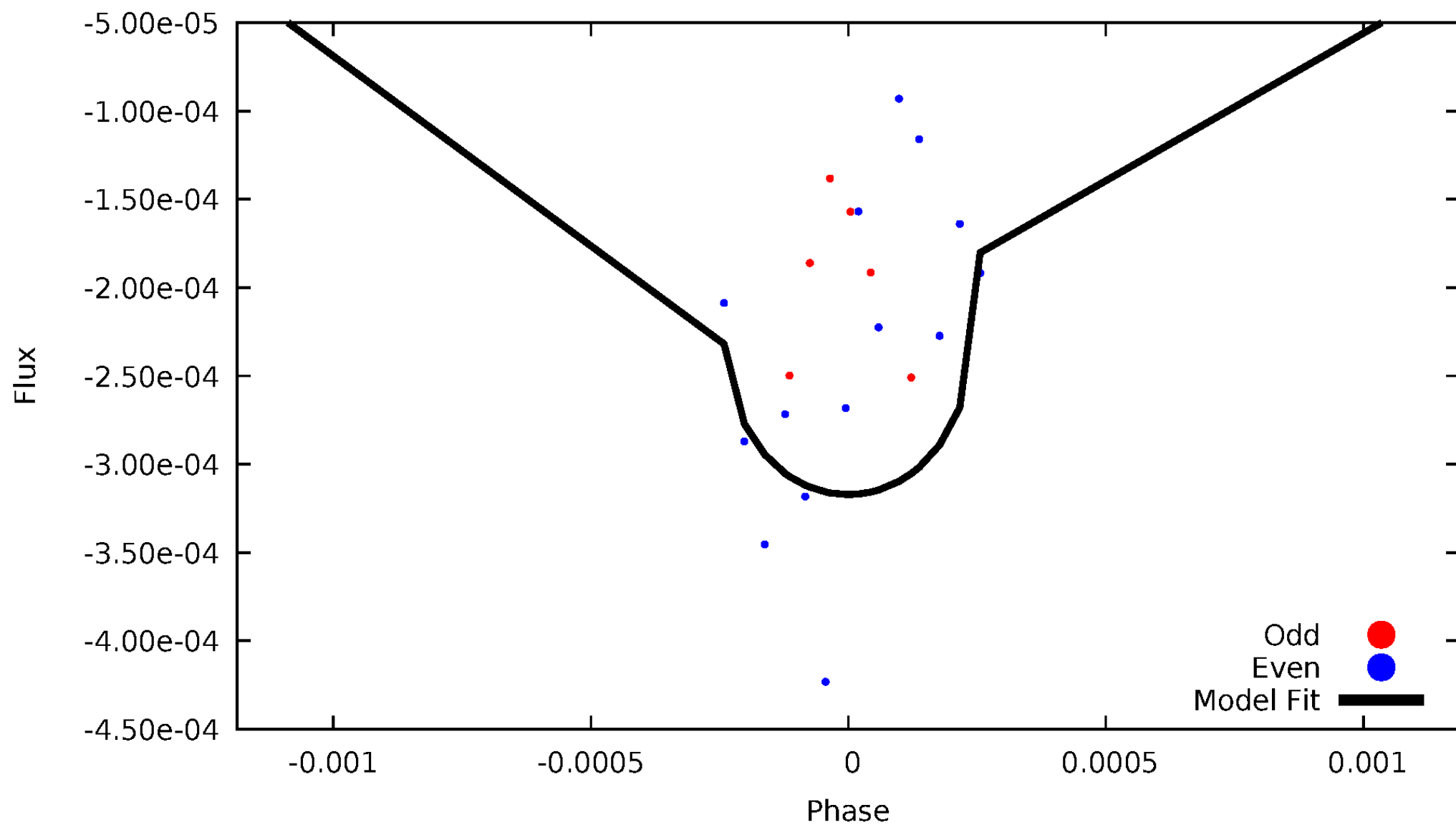


TCE 007176268-08



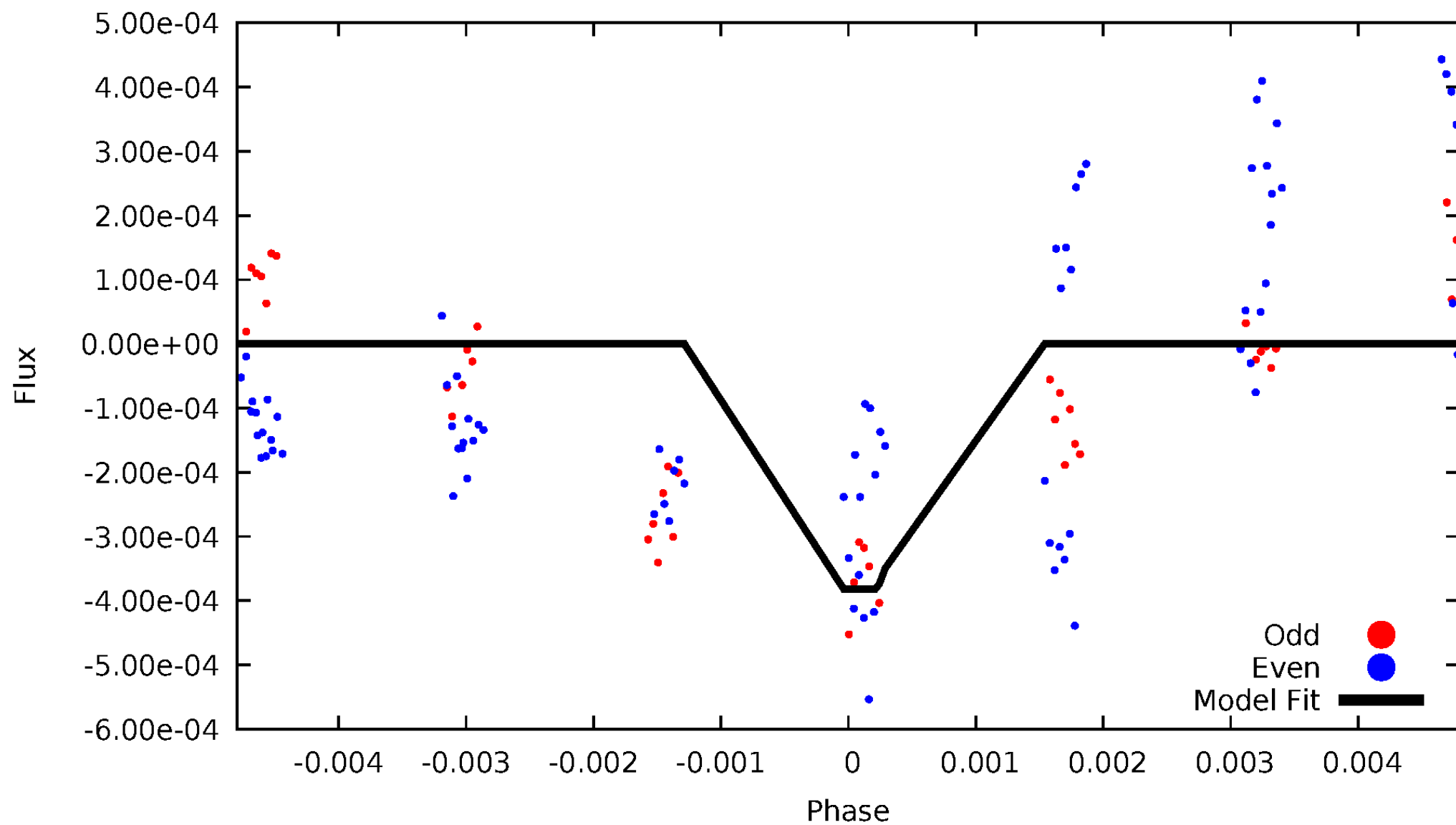
DV Odd/Even

TCE 007176268-08



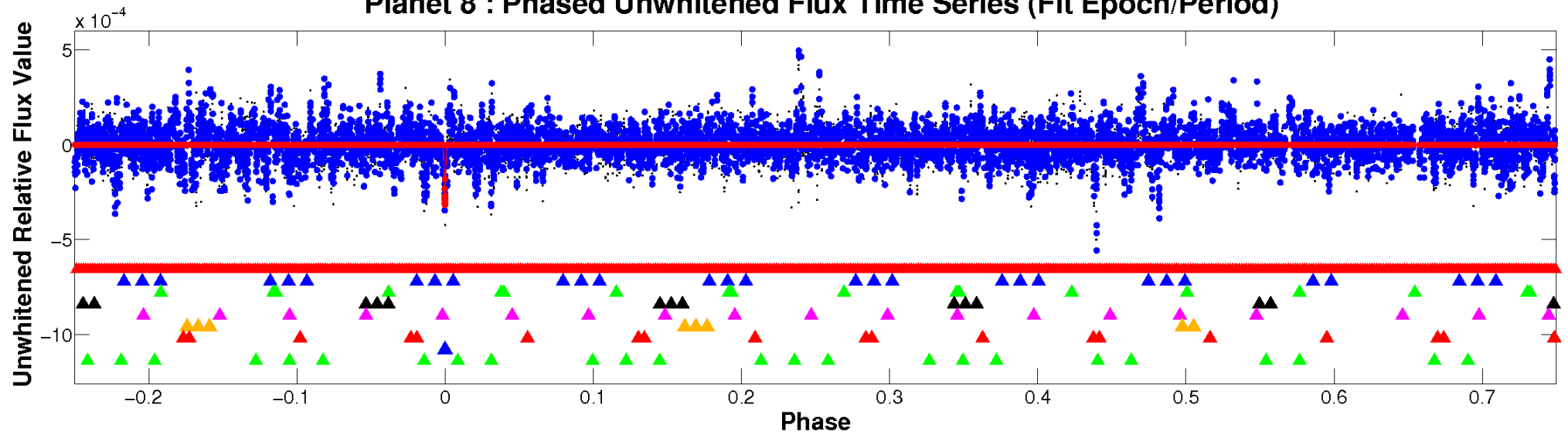
ALT Odd/Even

TCE 007176268-08

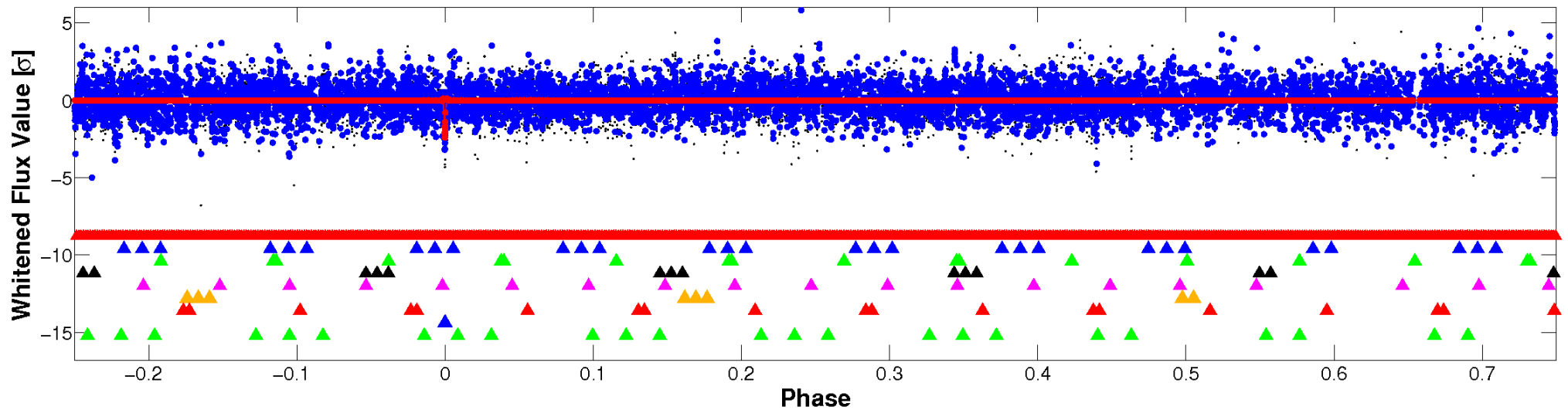


Non-Whitened Vs. Whitened Light Curve

Planet 8 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

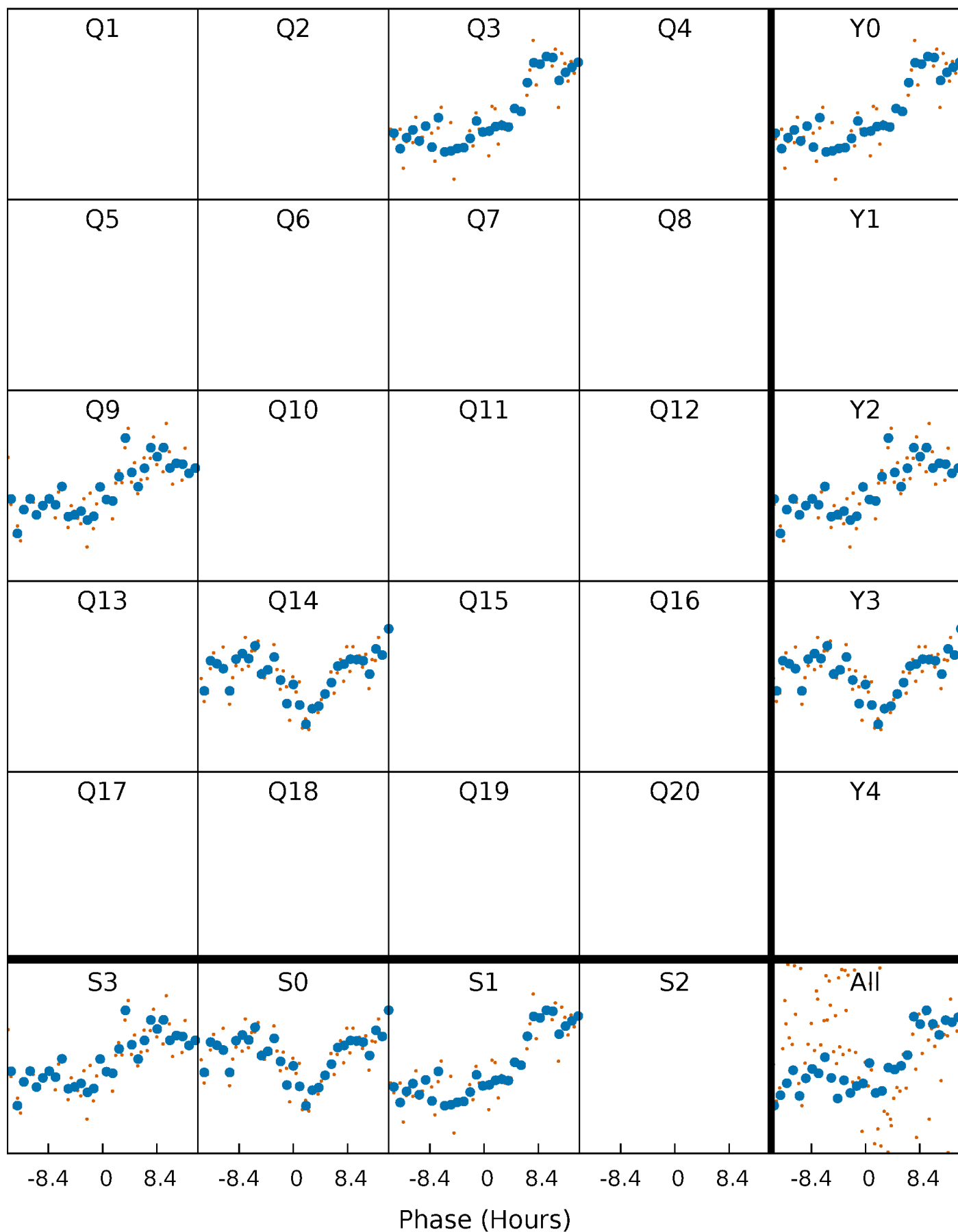


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



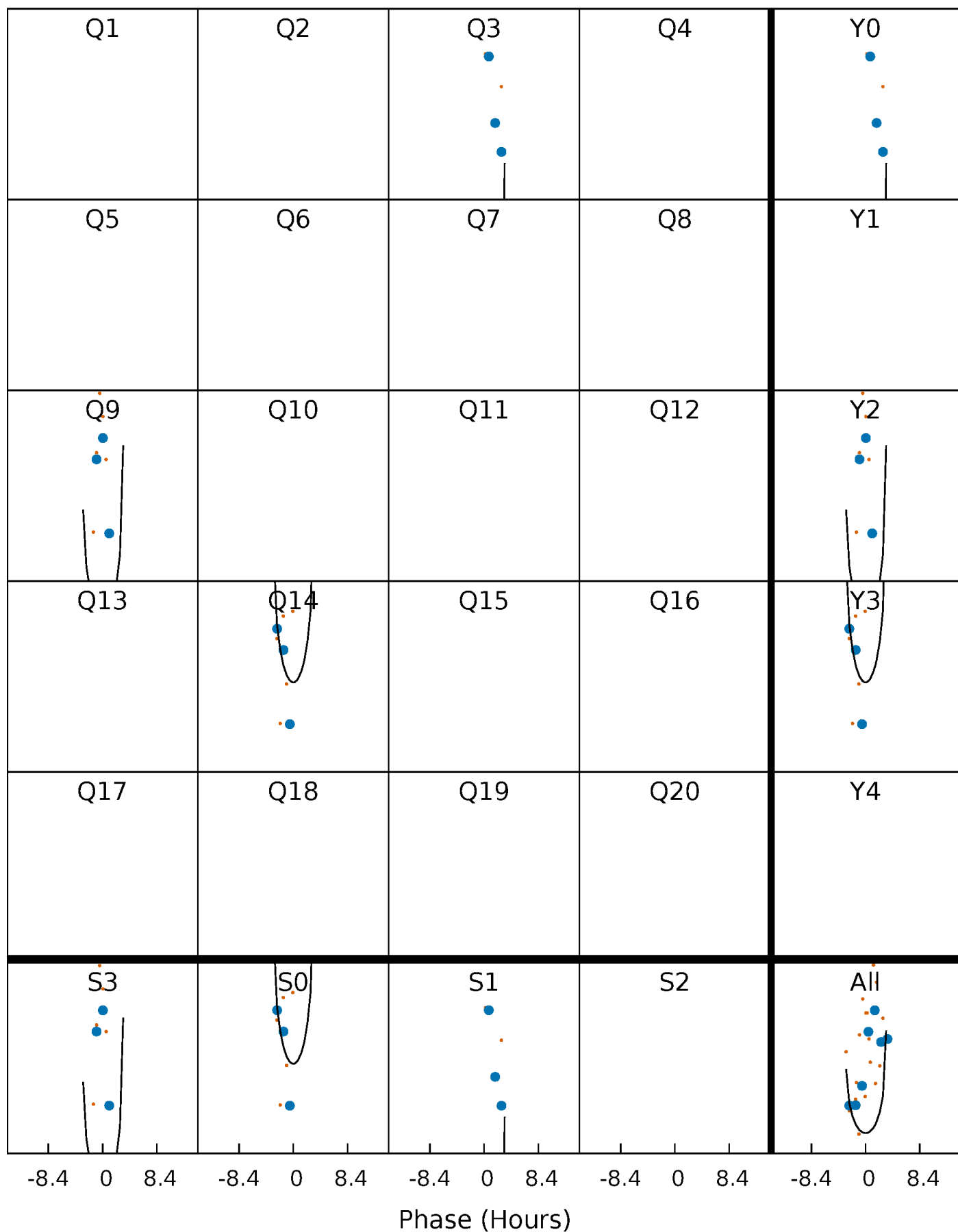
PDC Quarter-Phased Transit Curves

TCE 007176268-08 P=518.428552 Days $T_0=304.103724$ (BKJD)



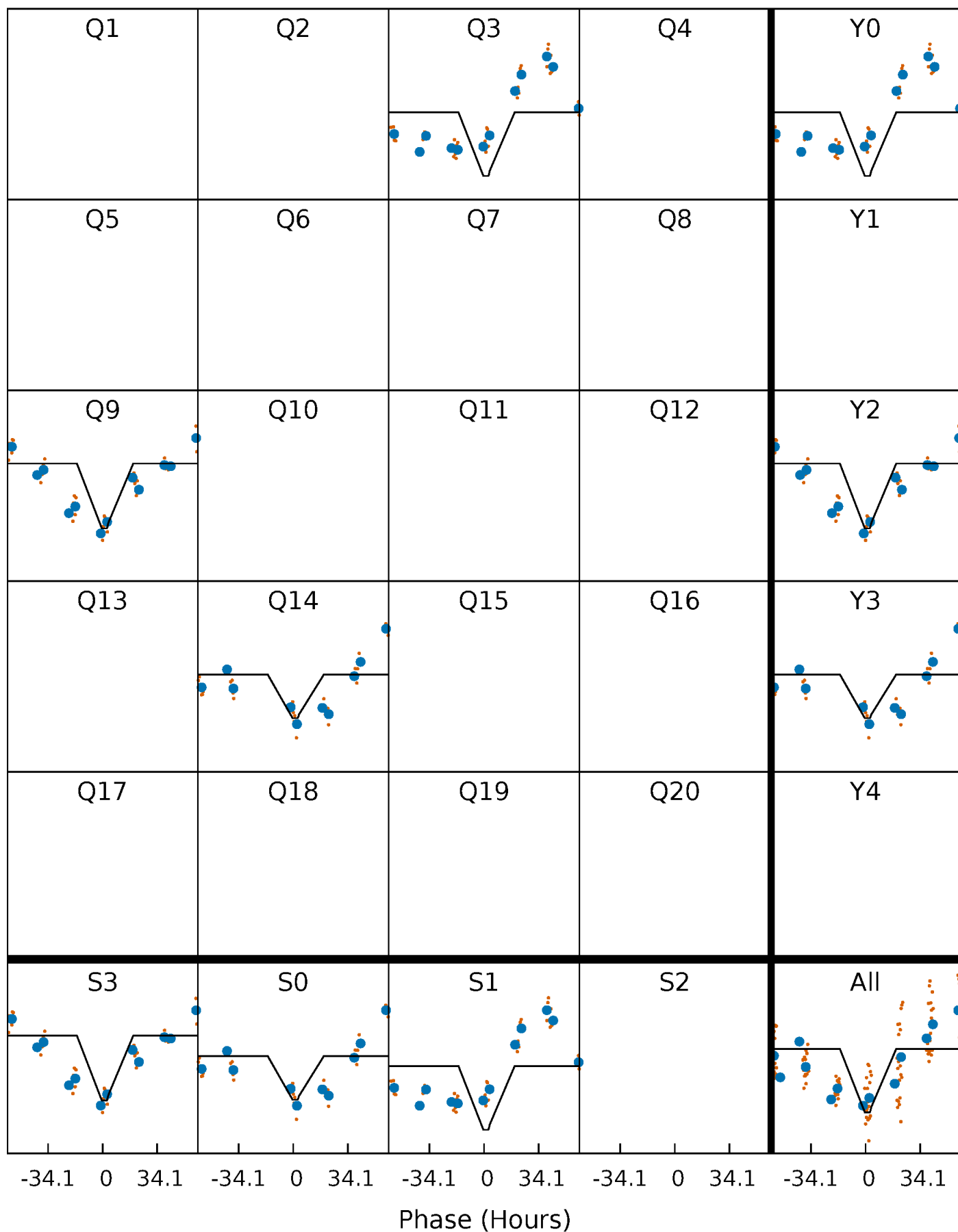
DV Quarter-Phased Transit Curves

TCE 007176268-08 $P=518.428552$ Days $T_0=304.103724$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

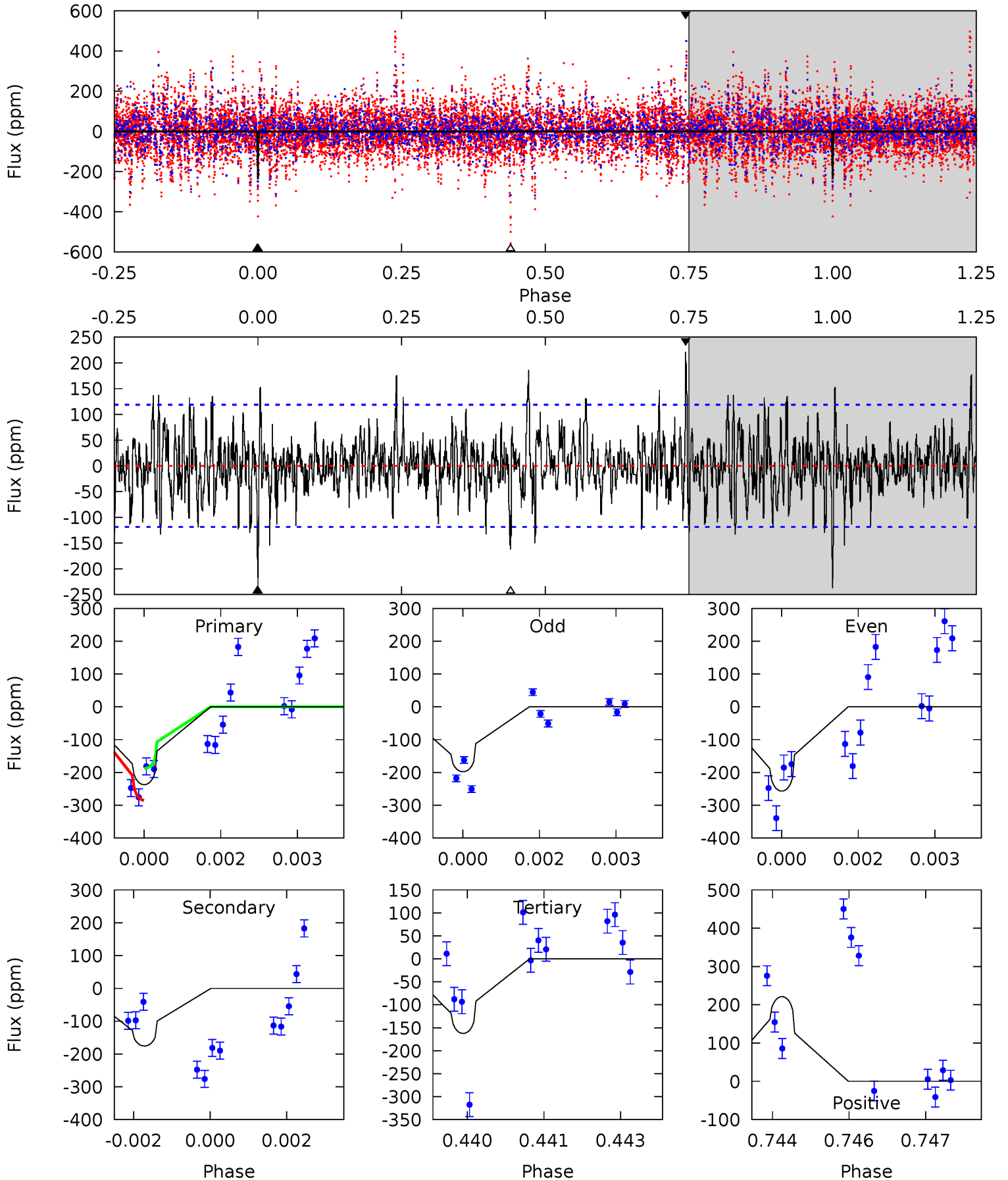
TCE 007176268-08 P=518.383972 Days $T_0=304.086356$ (BKJD)



DV Model-Shift Uniqueness Test

007176268-08, P = 518.428552 Days, E = 304.103724 Days

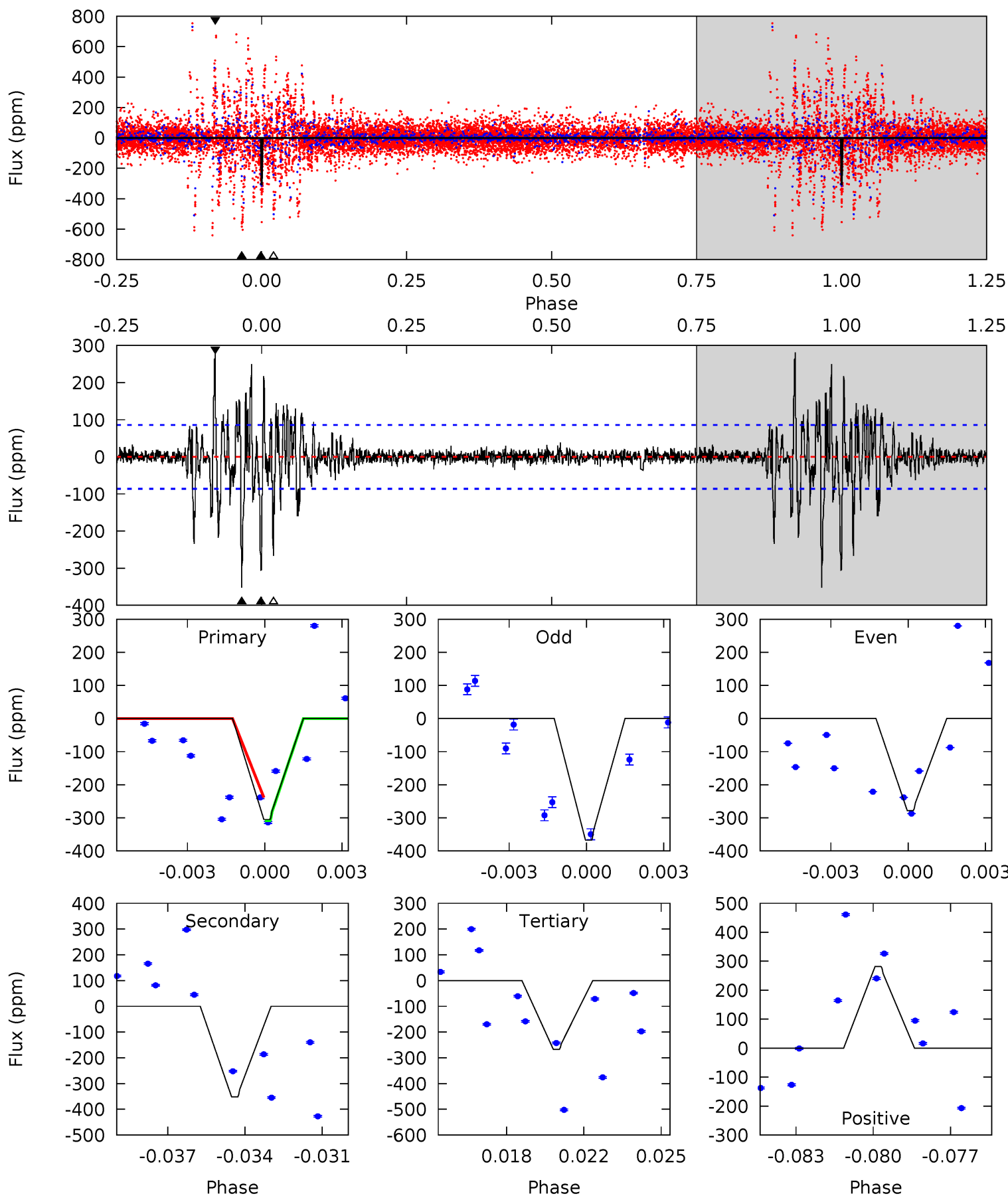
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	7.95	7.36	10.0	5.37	3.17	2.05	3.40	0.73	0.60	-2.07	1.40	1.19	0.48	2.18



Alt Model-Shift Uniqueness Test

007176268-08, P = 518.383972 Days, E = 304.086356 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.6	21.5	16.3	17.1	5.25	2.96	2.46	2.32	1.45	5.18	4.31	2.76	0.83	0.44	2.08



Stellar Parameters For KIC 007176268

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6698^{+151}_{-184}	$3.945^{+0.240}_{-0.129}$	$-0.140^{+0.300}_{-0.250}$	$2.138^{+0.501}_{-0.613}$	$1.469^{+0.186}_{-0.256}$	$0.212^{+0.314}_{-0.082}$
	+2%/-3%	+6%/-3%	+214%/-179%	+23%/-29%	+13%/-17%	+148%/-39%
Source	PHO1	FLK73	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 007176268-08 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-176 ± 22	$7.16^{+7.07}_{-4.82}$	497^{+33}_{-37}	4451^{+3259}_{-896}	3760^{+34933}_{-2778}
Alt.	-352 ± 16	$7.19^{+7.73}_{-4.56}$	498^{+31}_{-38}	5107^{+3410}_{-1174}	7557^{+52788}_{-5736}

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 $A_{\text{obs}} \gg 1.0$

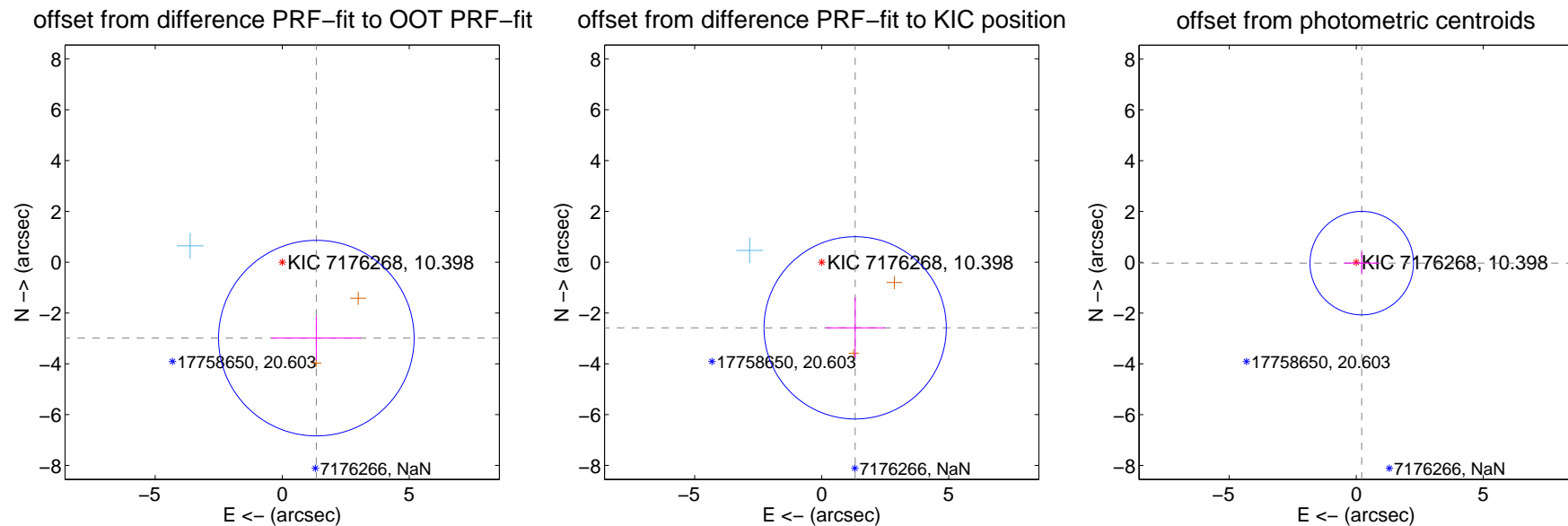
DV Centroid Data

Supplemental centroid analysis for 007176268-08. **Kepler magnitude: 10.40.** Transit SNR 9.05

There are 1 quarters with good PRF difference image offsets

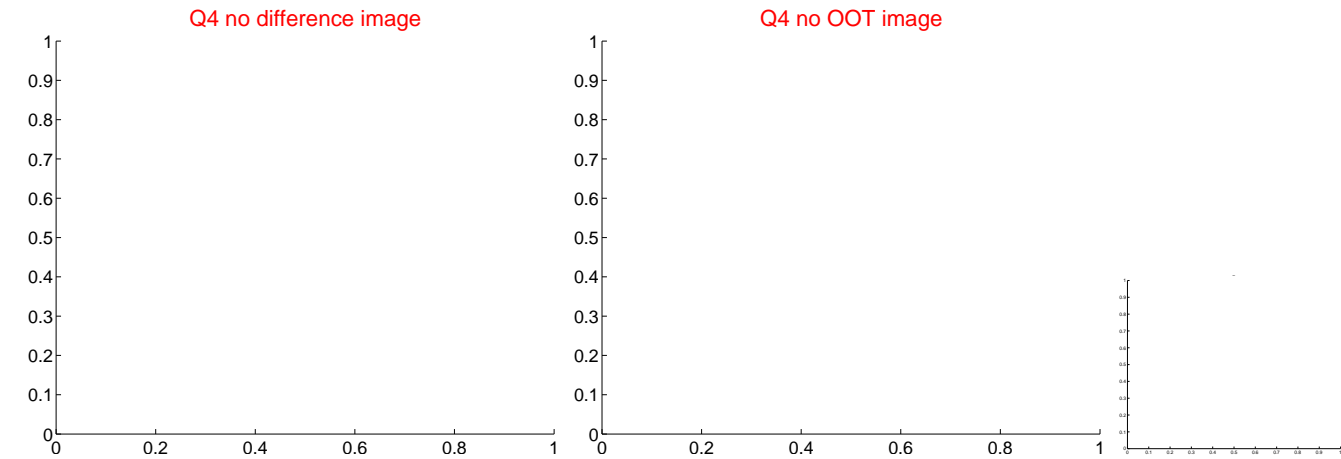
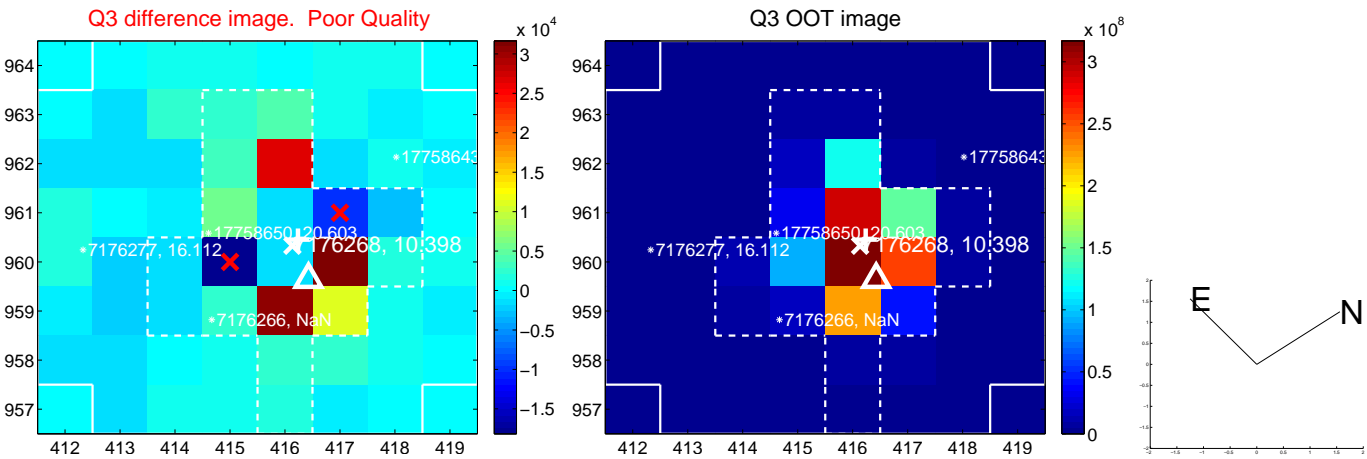
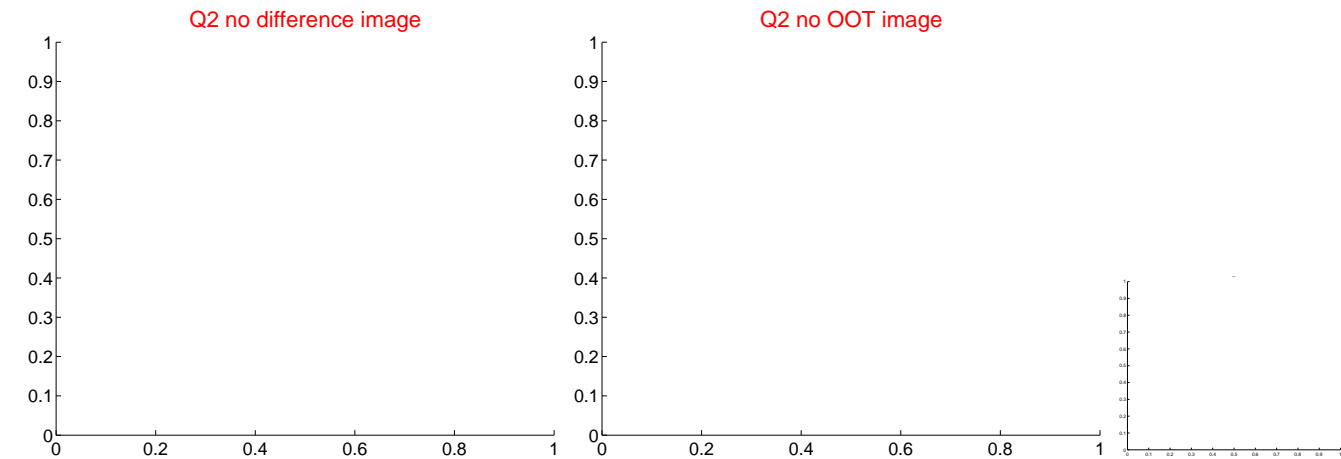
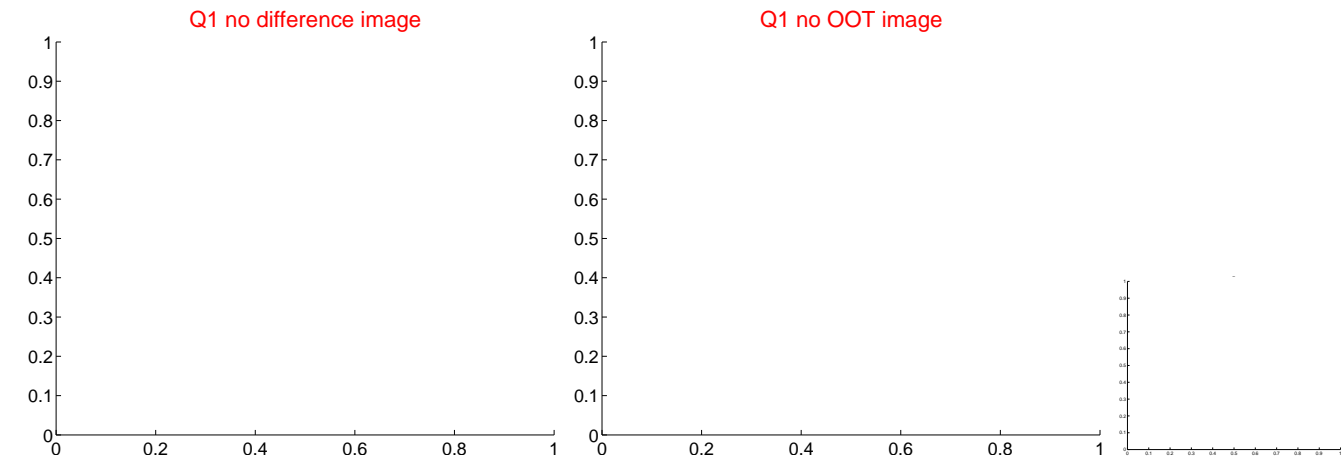
The direct PRF centroid is offset from the target star catalog position by about 0.40 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.278 ± 1.283	2.55	-1.344 ± 1.769	-2.990 ± 0.868
PRF-fit source offset from KIC position	2.901 ± 1.196	2.42	-1.317 ± 1.173	-2.585 ± 1.202
photometric centroid source offset	0.22 ± 0.68	0.32	-0.22 ± 0.68	-0.03 ± 0.45



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.

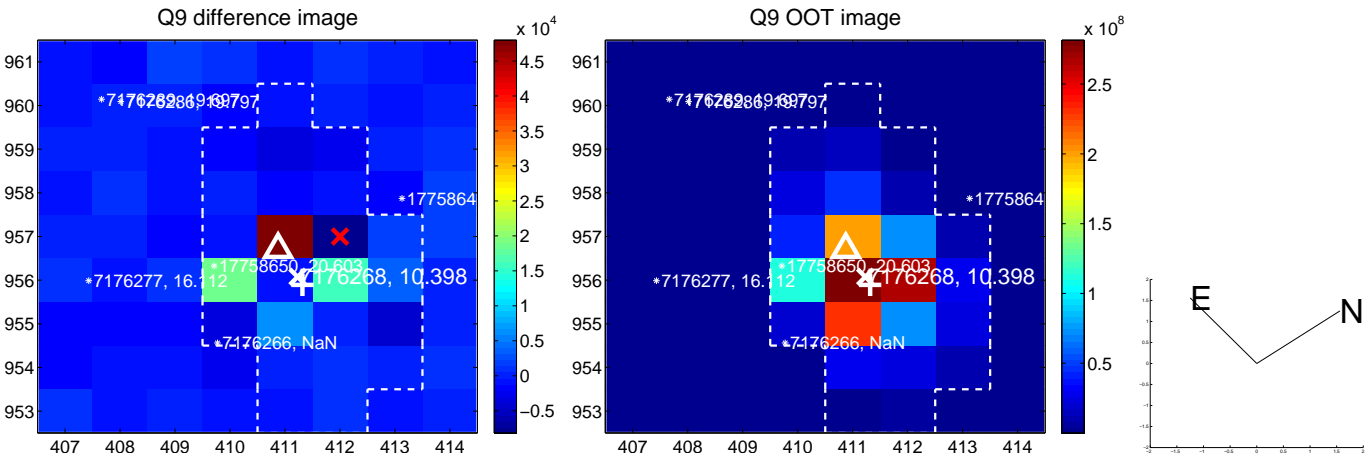
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



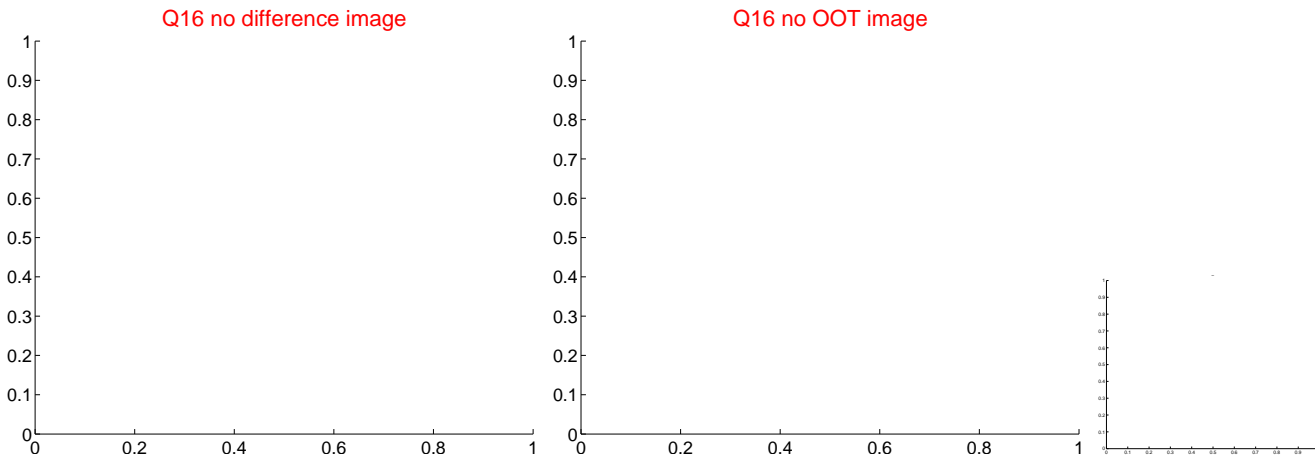
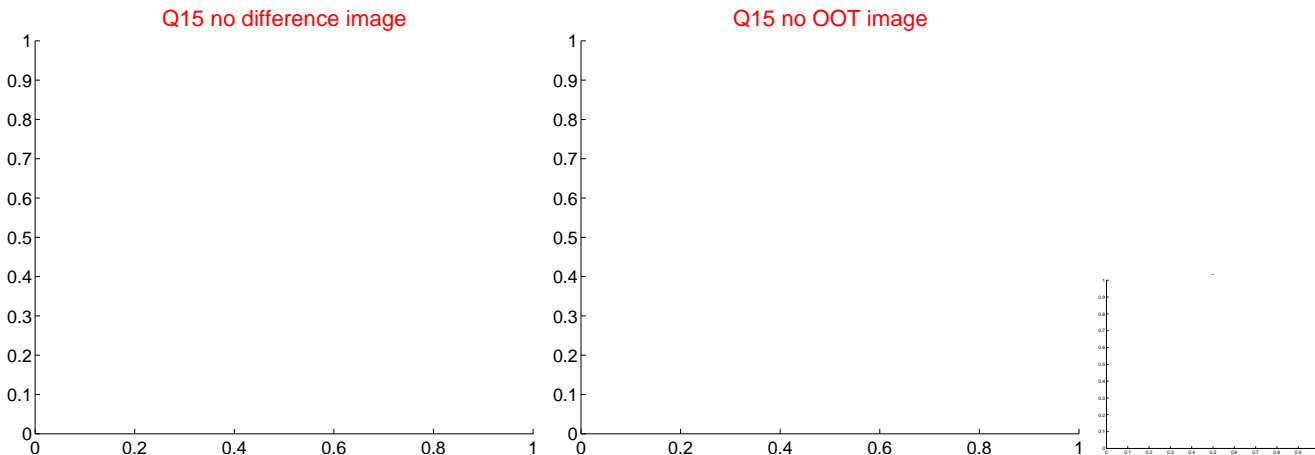
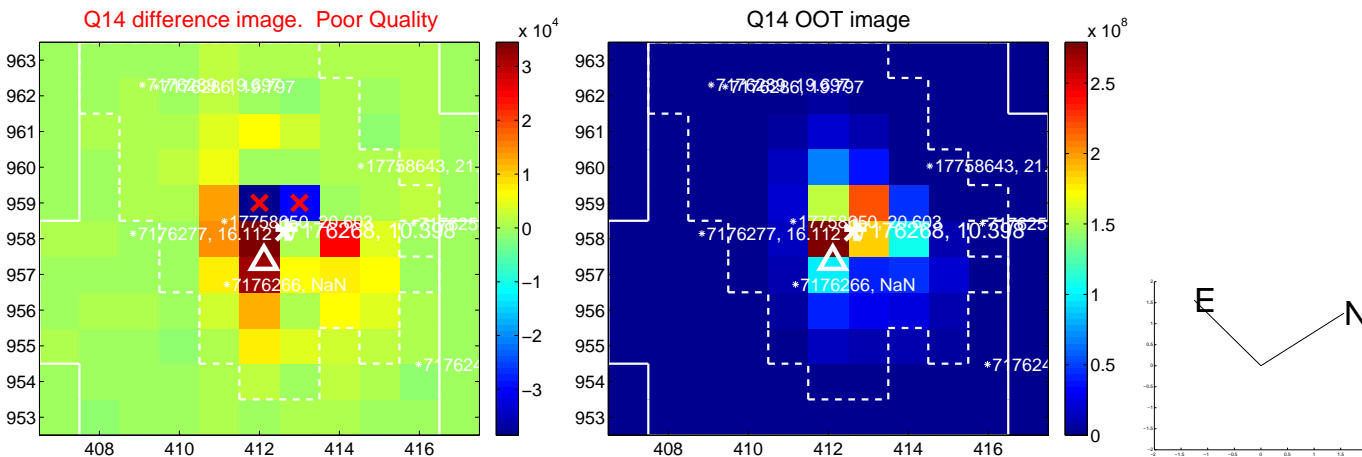
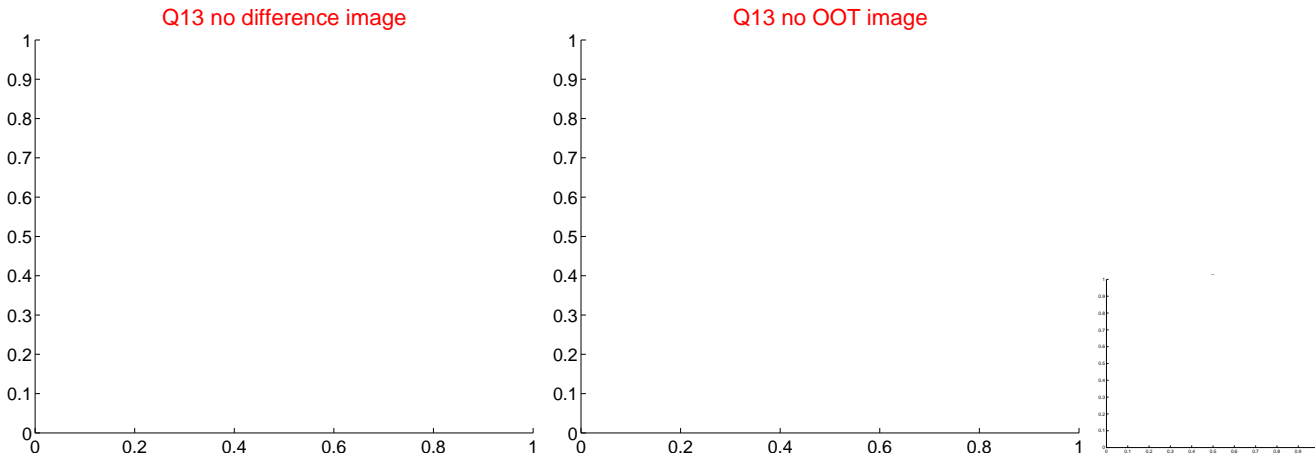
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



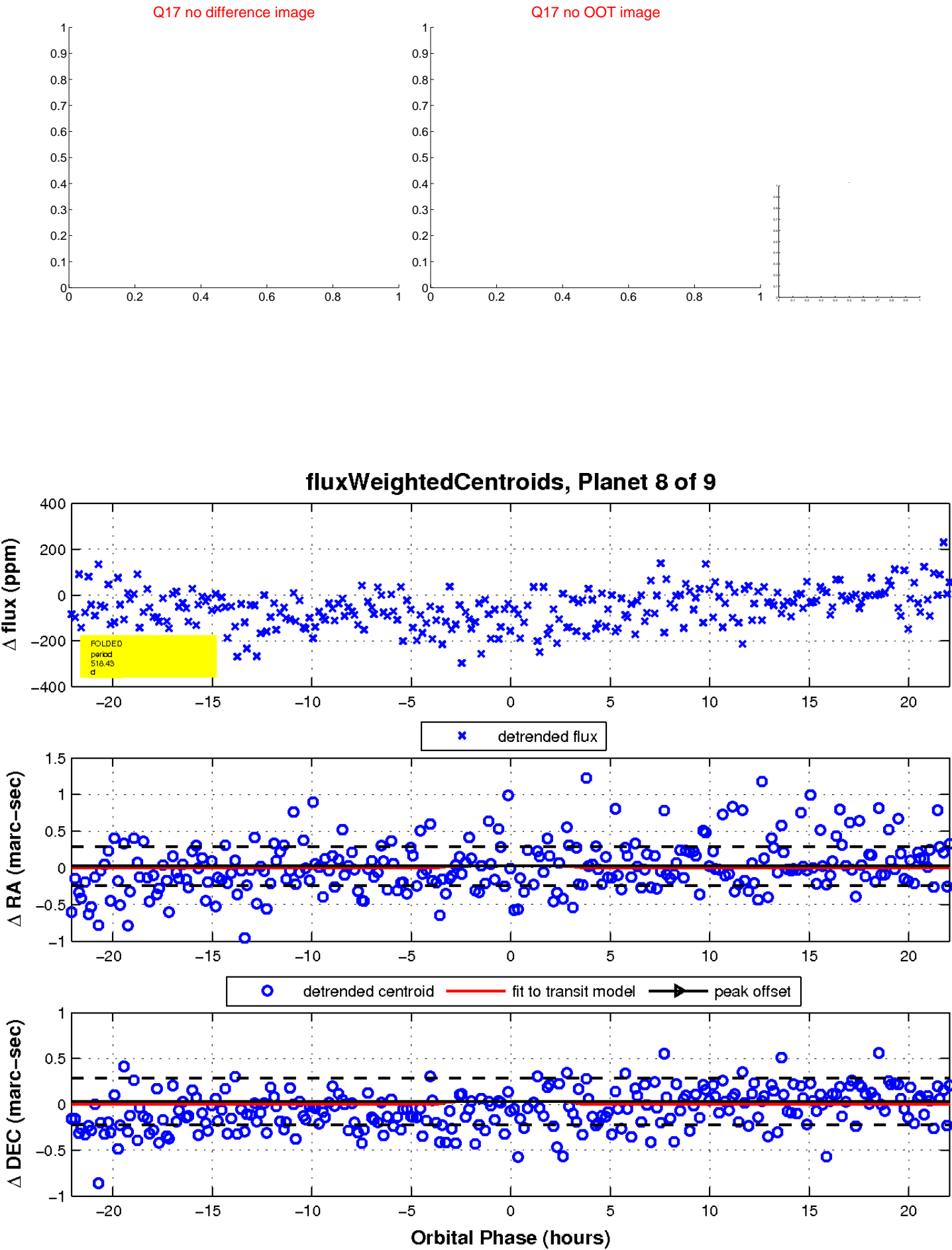
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

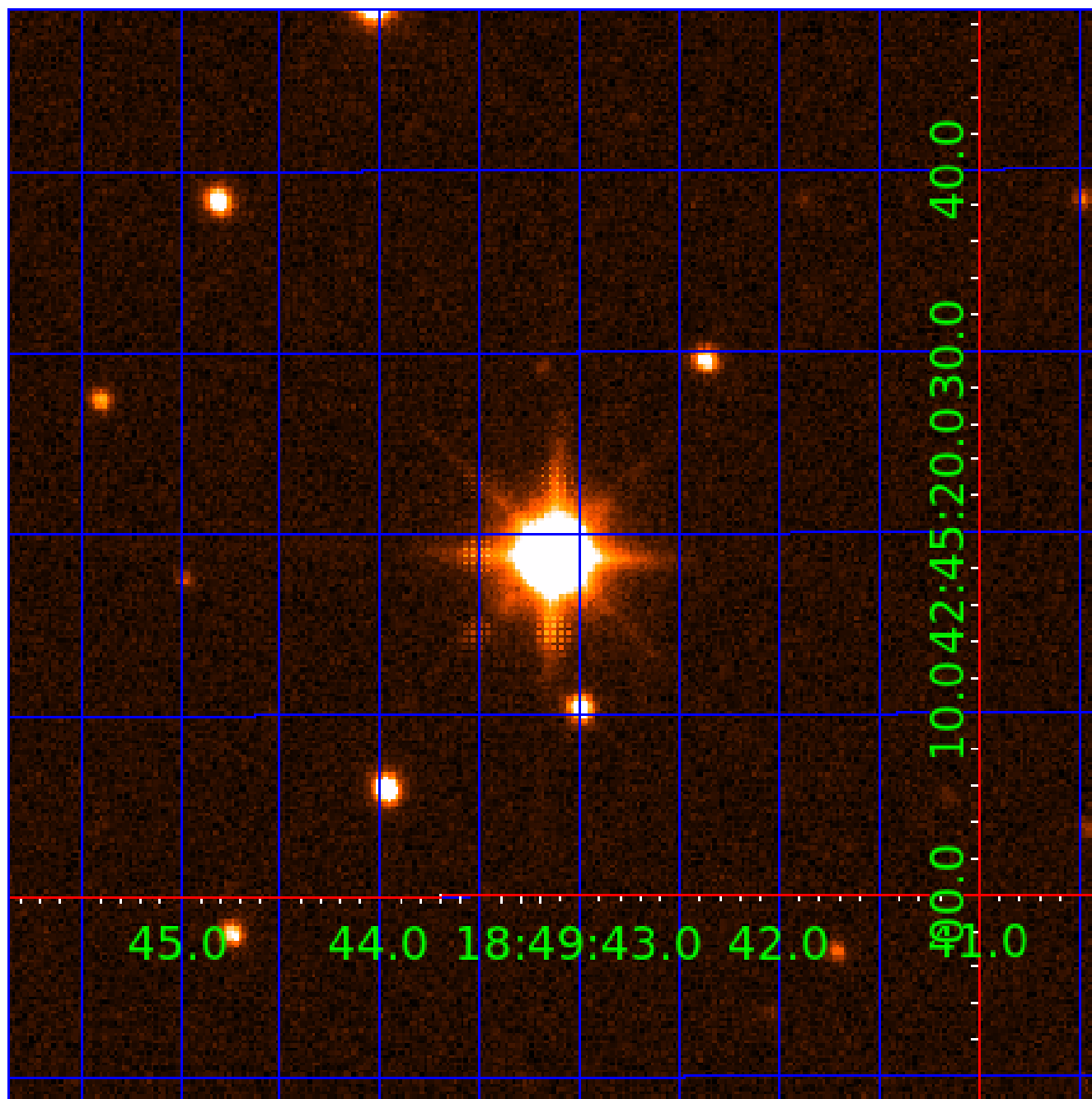


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007176268

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})
007176268-01	OBS	No	0.813753	132.060153	12.8	5.202	10.2	10.8	2.14	6698	0.84	21912.38
007176268-02	OBS	No	51.204386	153.350435	106.5	3.823	12.4	4.7	2.14	6698	2.52	87.55
007176268-03	OBS	No	79.682941	165.313349	234.5	3.218	11.6	9.4	2.14	6698	3.77	48.55
007176268-04	OBS	No	102.901731	181.369342	163.1	3.825	12.8	8.5	2.14	6698	3.13	34.52
007176268-05	OBS	No	77.880572	171.840913	124.3	8.625	11.2	5.9	2.14	6698	2.76	50.05
007176268-06	OBS	No	174.110248	213.867569	311.3	7.376	11.3	9.7	2.14	6698	7.27	17.12
007176268-07	OBS	No	79.596048	135.056846	103.3	5.051	9.8	4.1	2.14	6698	2.48	48.62
007176268-08	OBS	No	518.428552	304.103724	317.1	7.383	8.8	9.1	2.14	6698	4.44	4.00
007176268-09	OBS	No	58.906583	179.024332	178.2	3.792	7.3	7.4	2.14	6698	4.51	72.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007176268-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED
007176268-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—CENT_SATURATED
007176268-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007176268-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—CENT_SATURATED
007176268-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_SATURATED
007176268-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_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.

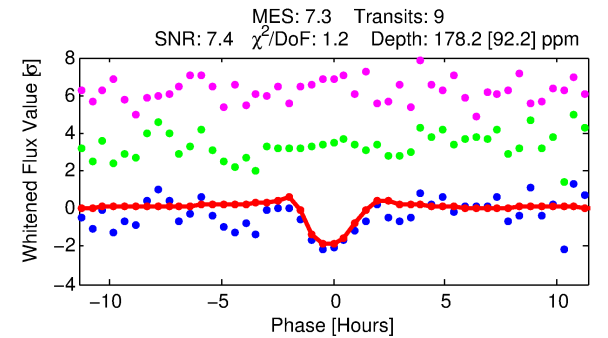
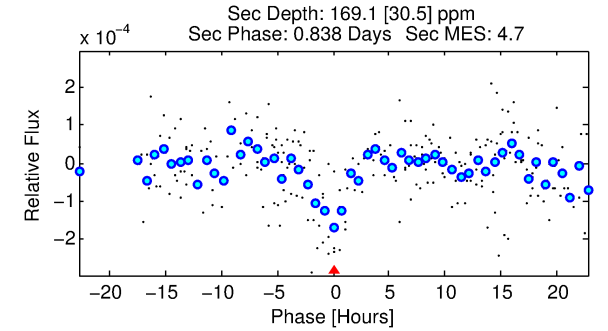
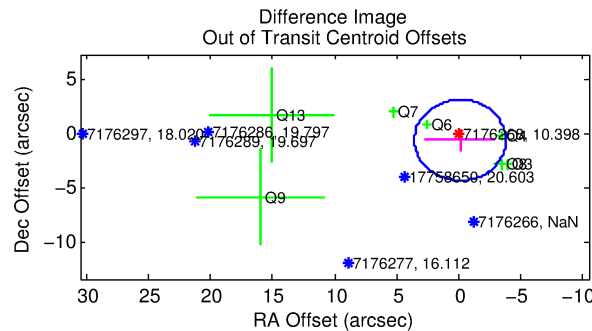
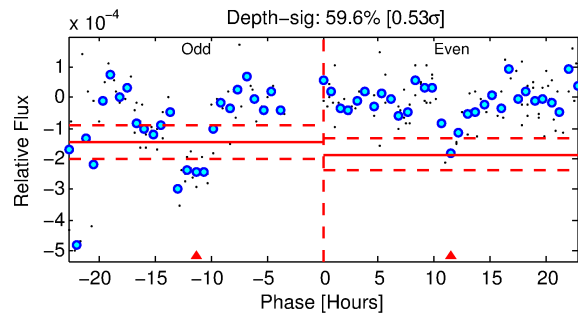
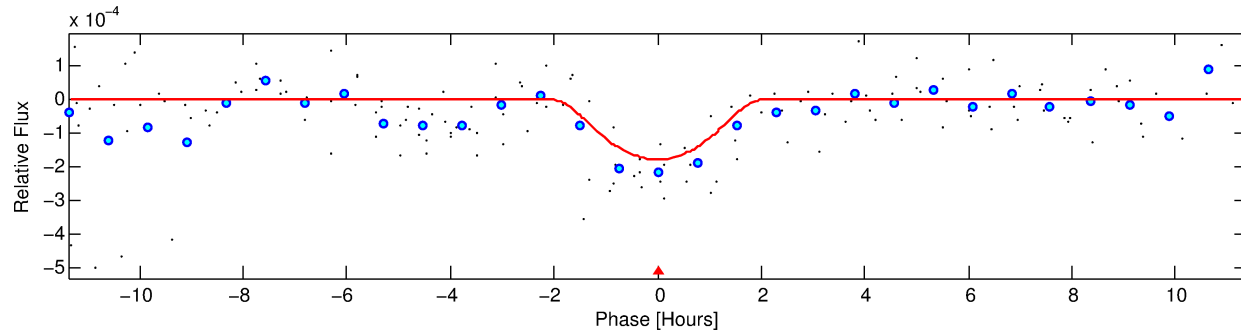
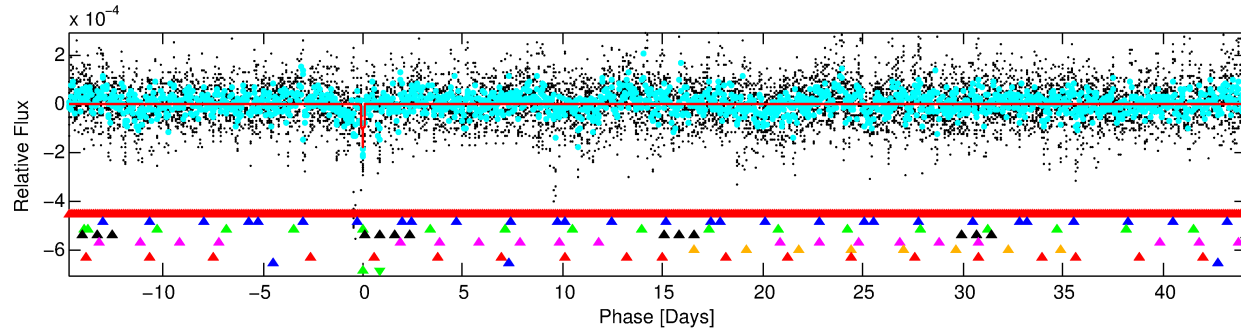
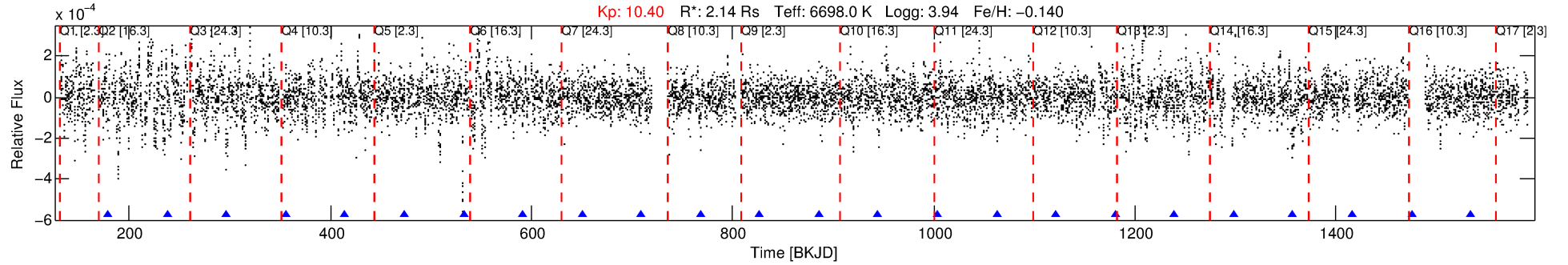
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007176268-09

No Significant Match Found

DV One-Page Summary

KIC: 7176268 Candidate: 9 of 9 Period: 58.907 d



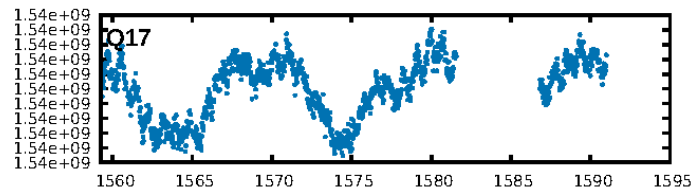
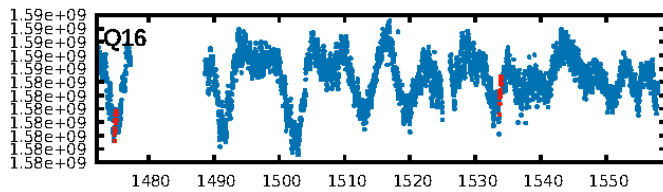
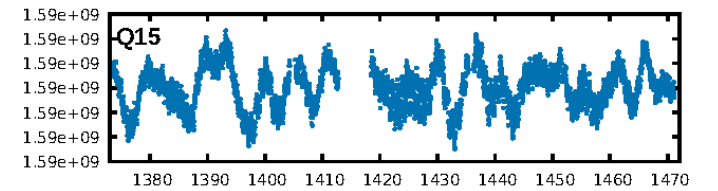
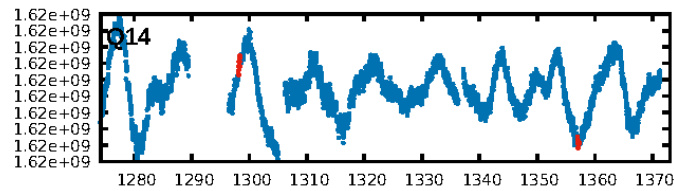
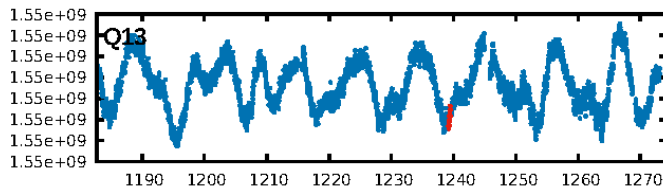
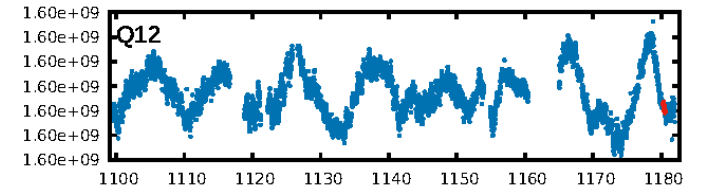
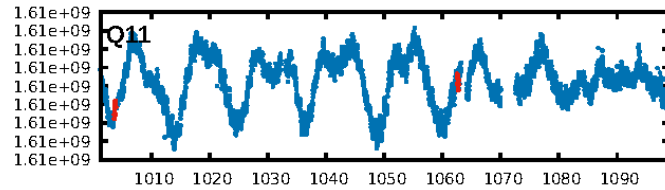
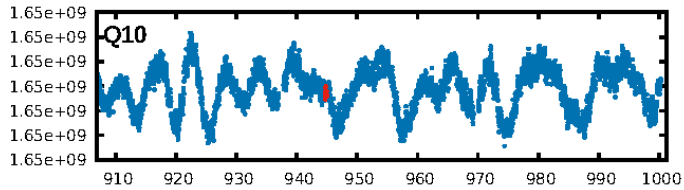
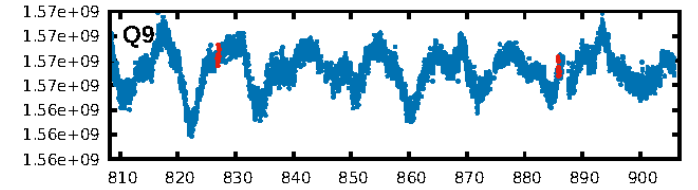
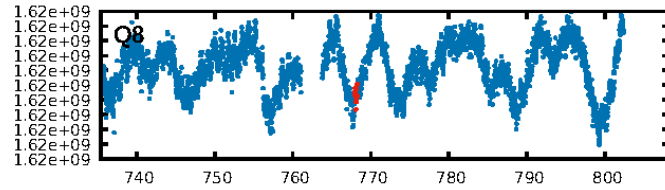
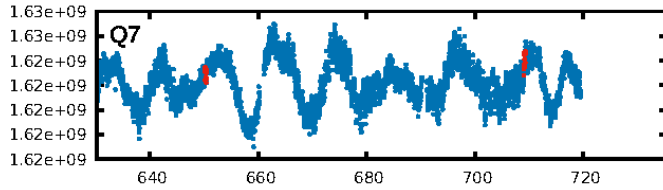
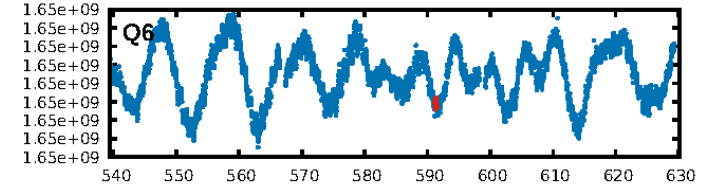
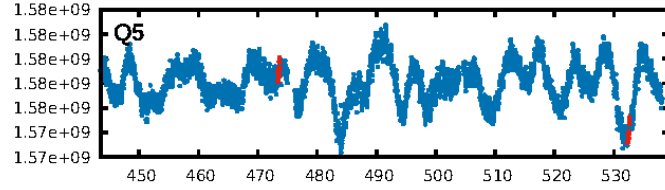
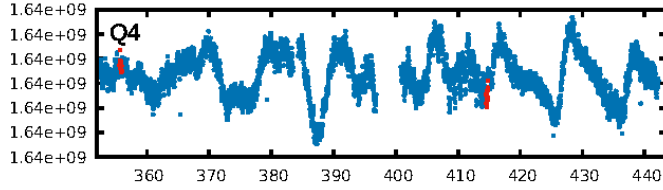
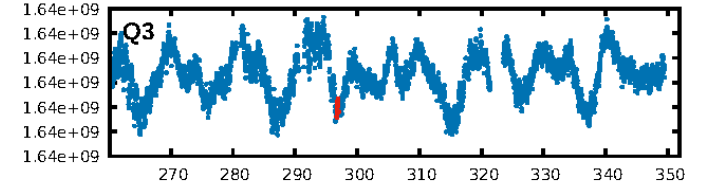
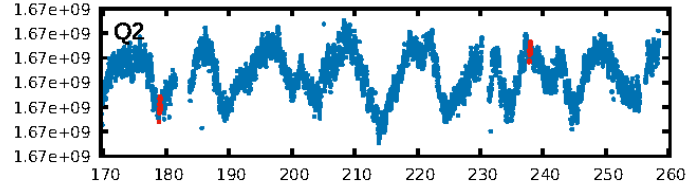
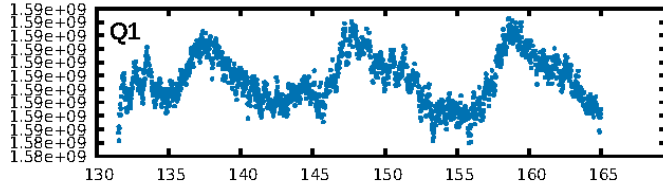
DV Fit Results:

Period = 58.90658 [0.00096] d
Epoch = 179.0243 [0.0126] BKJD
Rp/R* = 0.0193 [0.0335]
a/R* = 27.95 [20.27]
b = 0.99 [0.07]
Seff = 72.63 [31.18]
Teq = 744 [80] K
Rp = 4.51 [7.92] Re
a = 0.3369 [0.0894] AU
Ag = 518.14 [1808.57] [0.29 σ]
Teffp = 5491 [4760] K [1.00 σ]

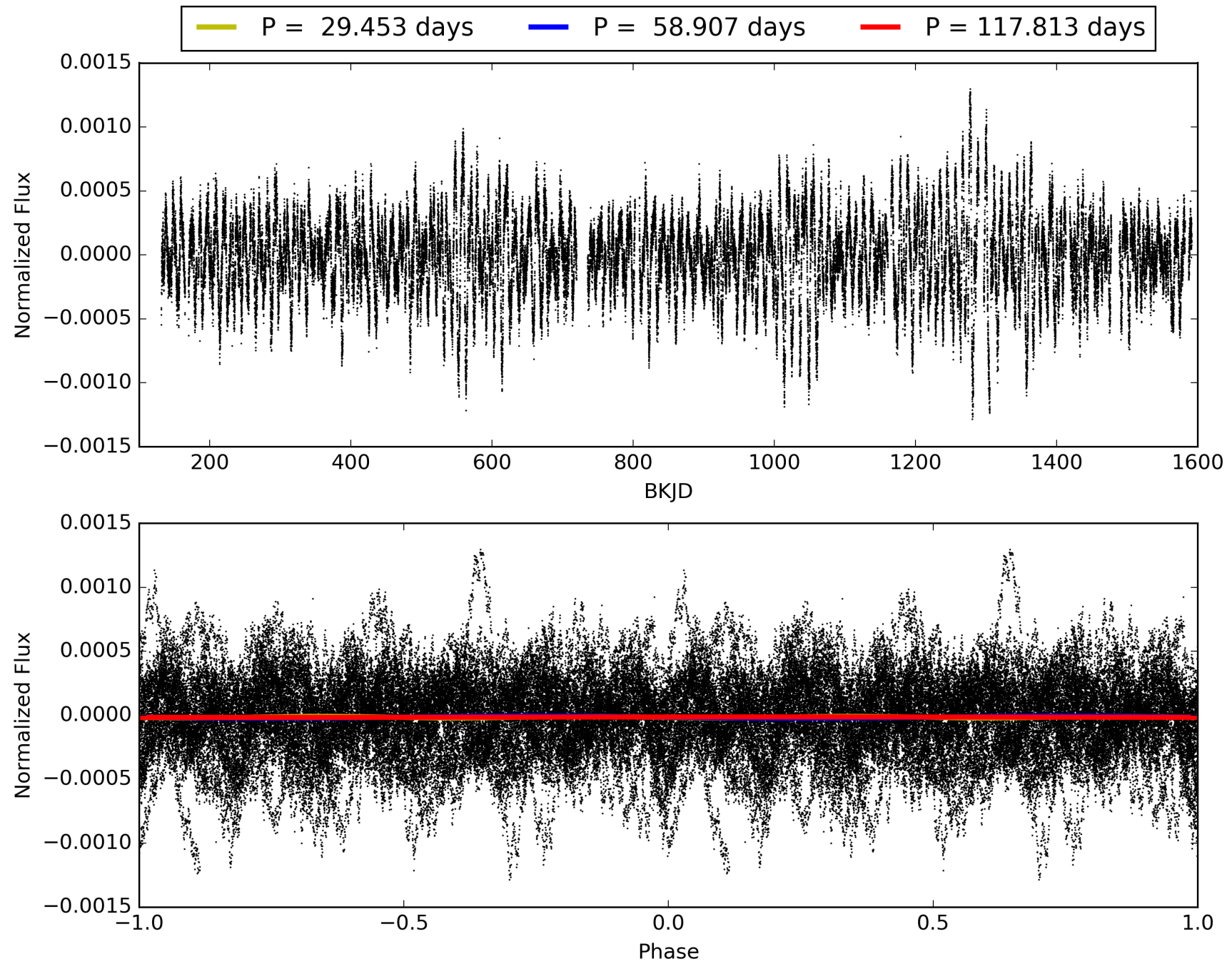
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [34.33 σ]
LongPeriod-sig: 100.0% [48.33 σ]
ModelChiSquare2-sig: 72.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.32e-08
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: -0.3617
Centroid-sig: 38.2%
Centroid-so: 0.481 arcsec [0.76 σ]
OotOffset-rm: 0.597 arcsec [0.49 σ]
KicOffset-rm: 0.407 arcsec [0.19 σ]
OotOffset-st: 1/2/2/2 [7]
KicOffset-st: 1/2/2/2 [7]
DiffImageQuality-fgm: 0.00 [0/7]
DiffImageOverlap-fno: 0.00 [0/13]

TCE 007176268-09, PDC Light Curves

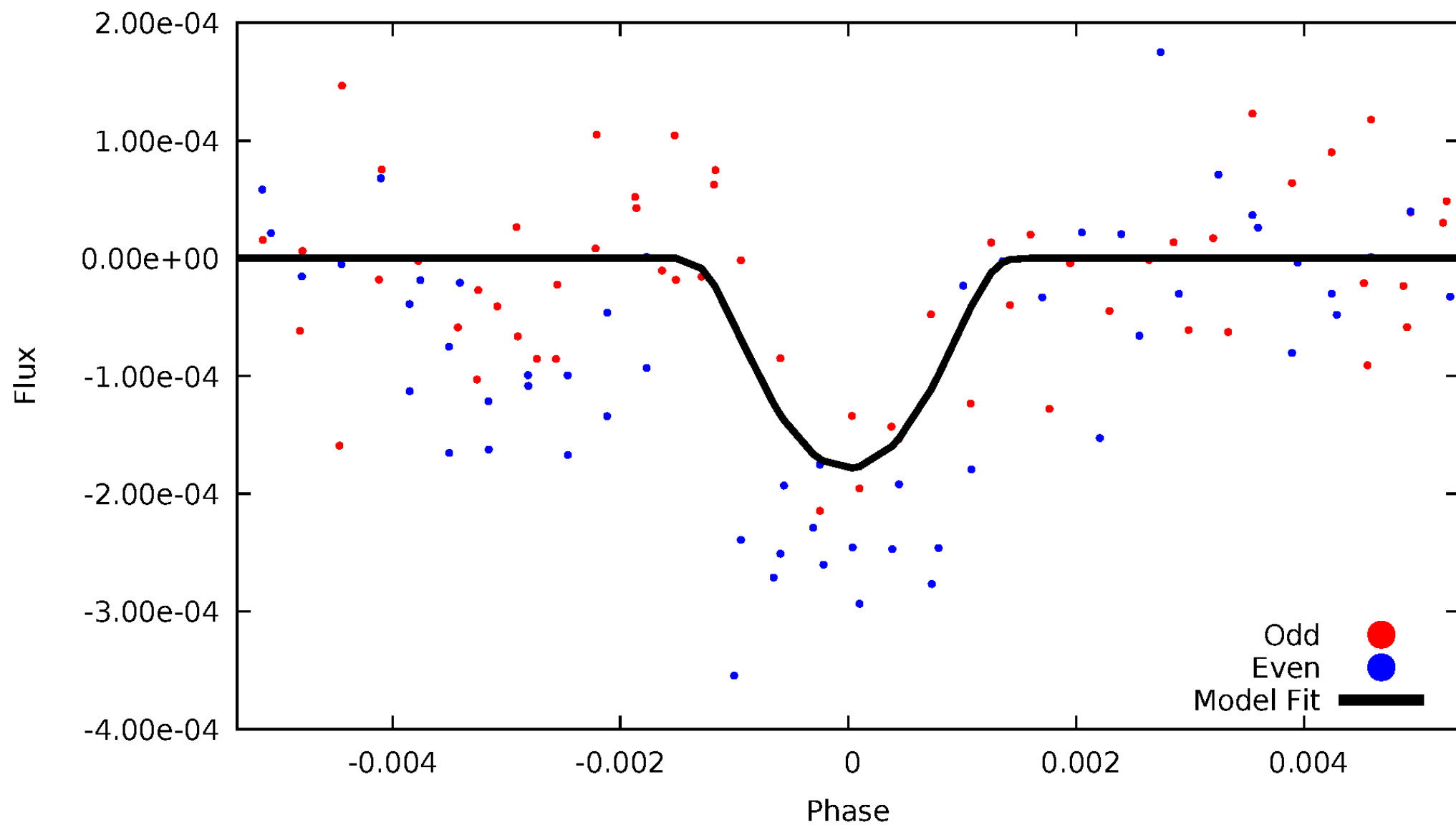


TCE 007176268-09



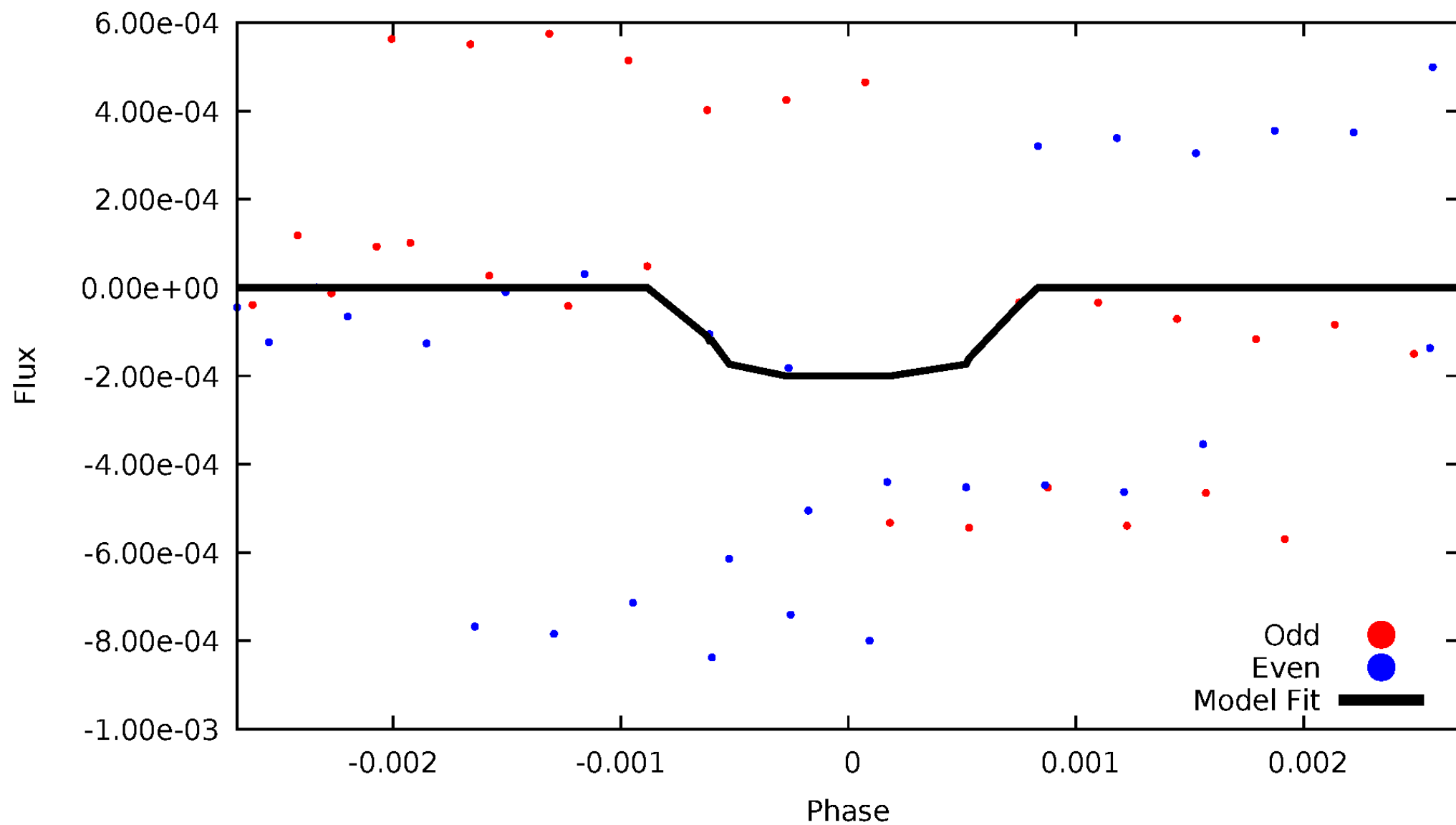
DV Odd/Even

TCE 007176268-09



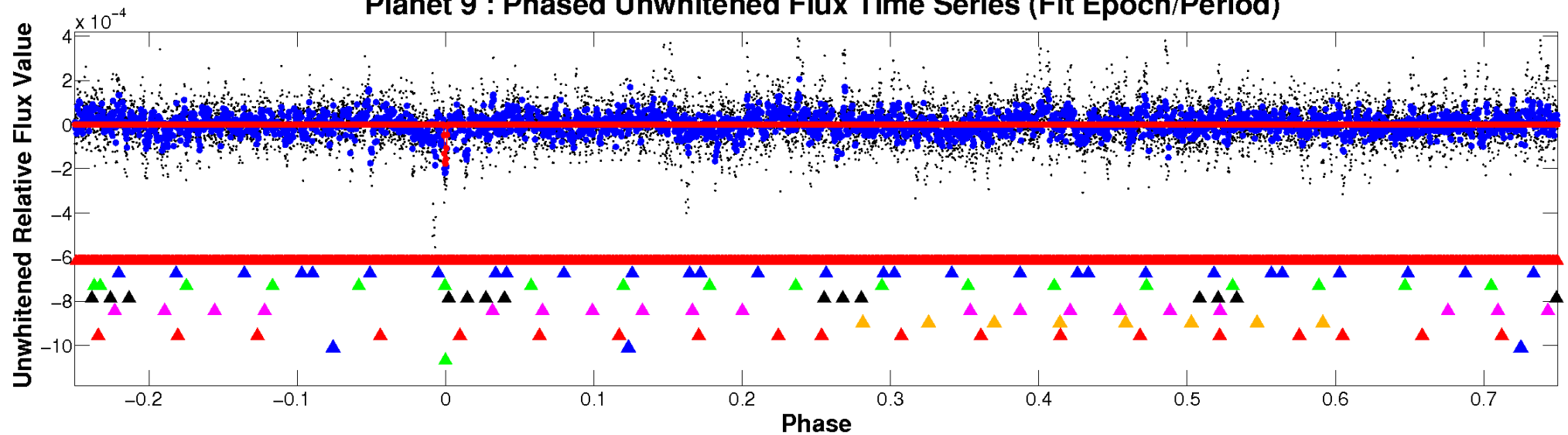
ALT Odd/Even

TCE 007176268-09

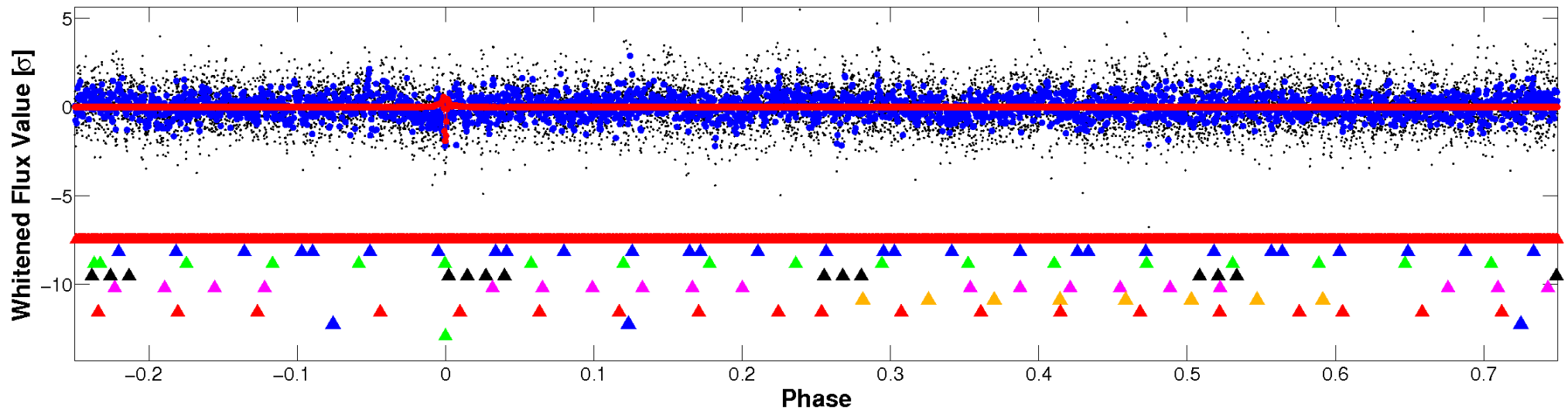


Non-Whitened Vs. Whitened Light Curve

Planet 9 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

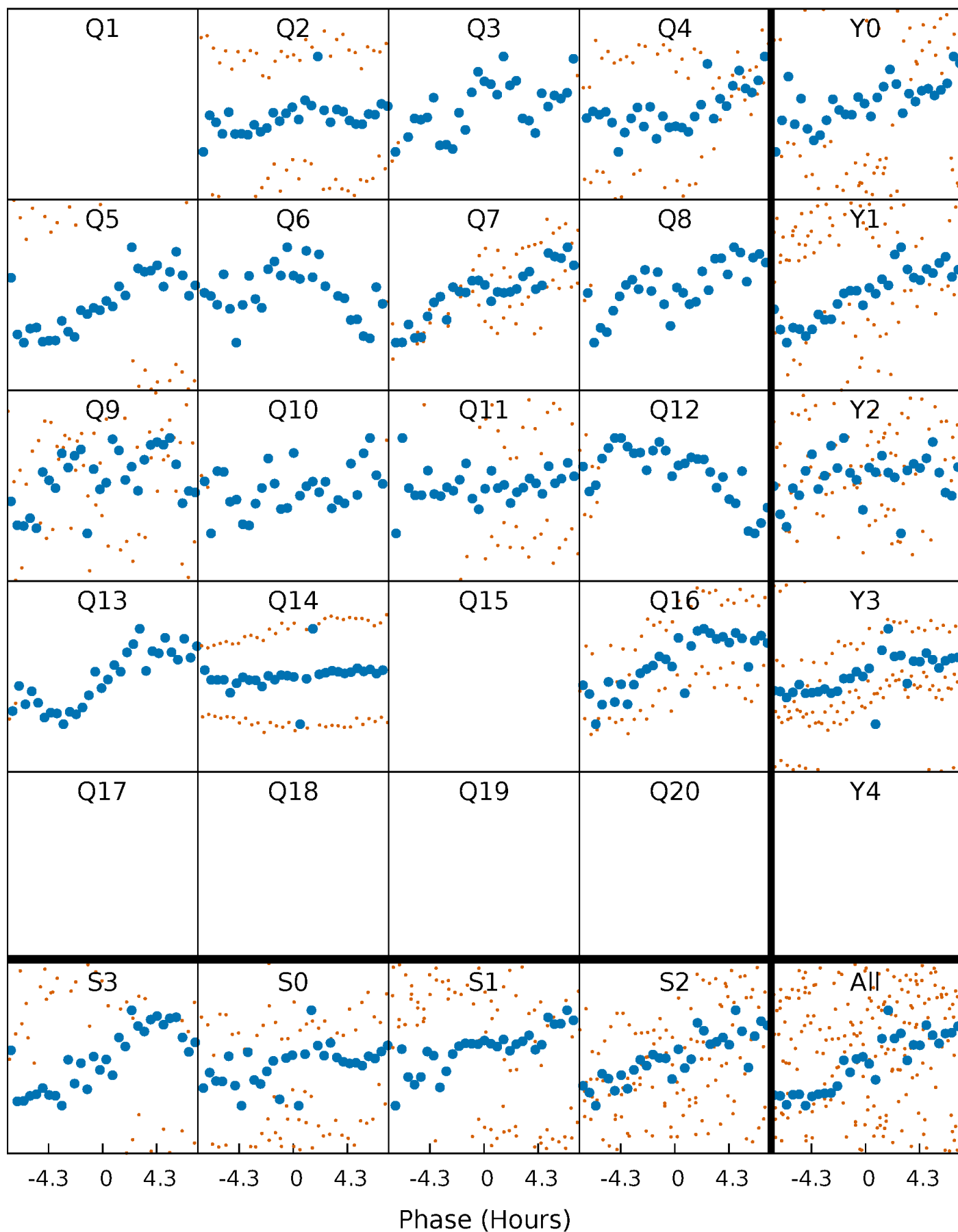


Planet 9 : Phased Whitened Flux Time Series (Fit Epoch/Period)



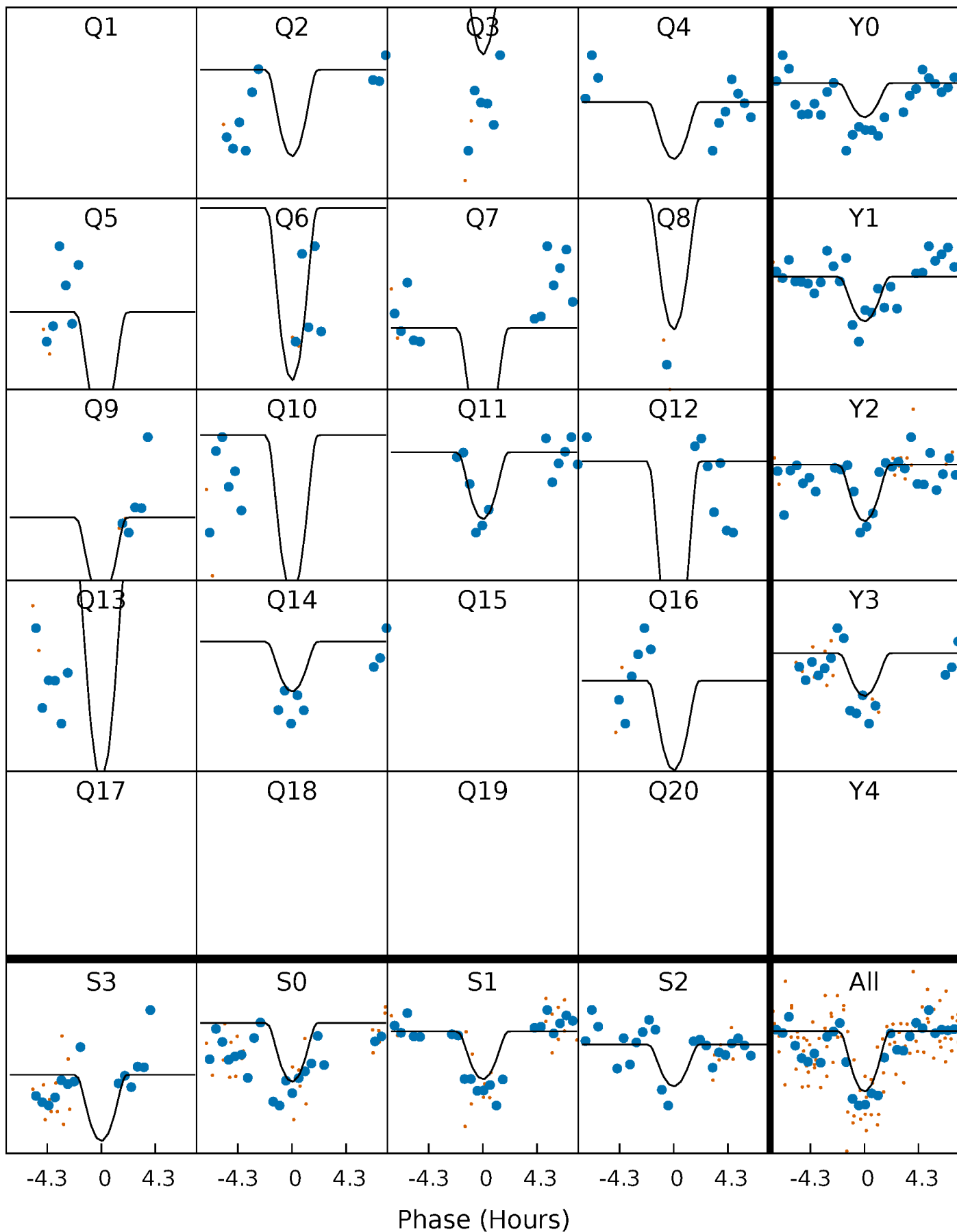
PDC Quarter-Phased Transit Curves

TCE 007176268-09 P= 58.906583 Days $T_0=179.024332$ (BKJD)



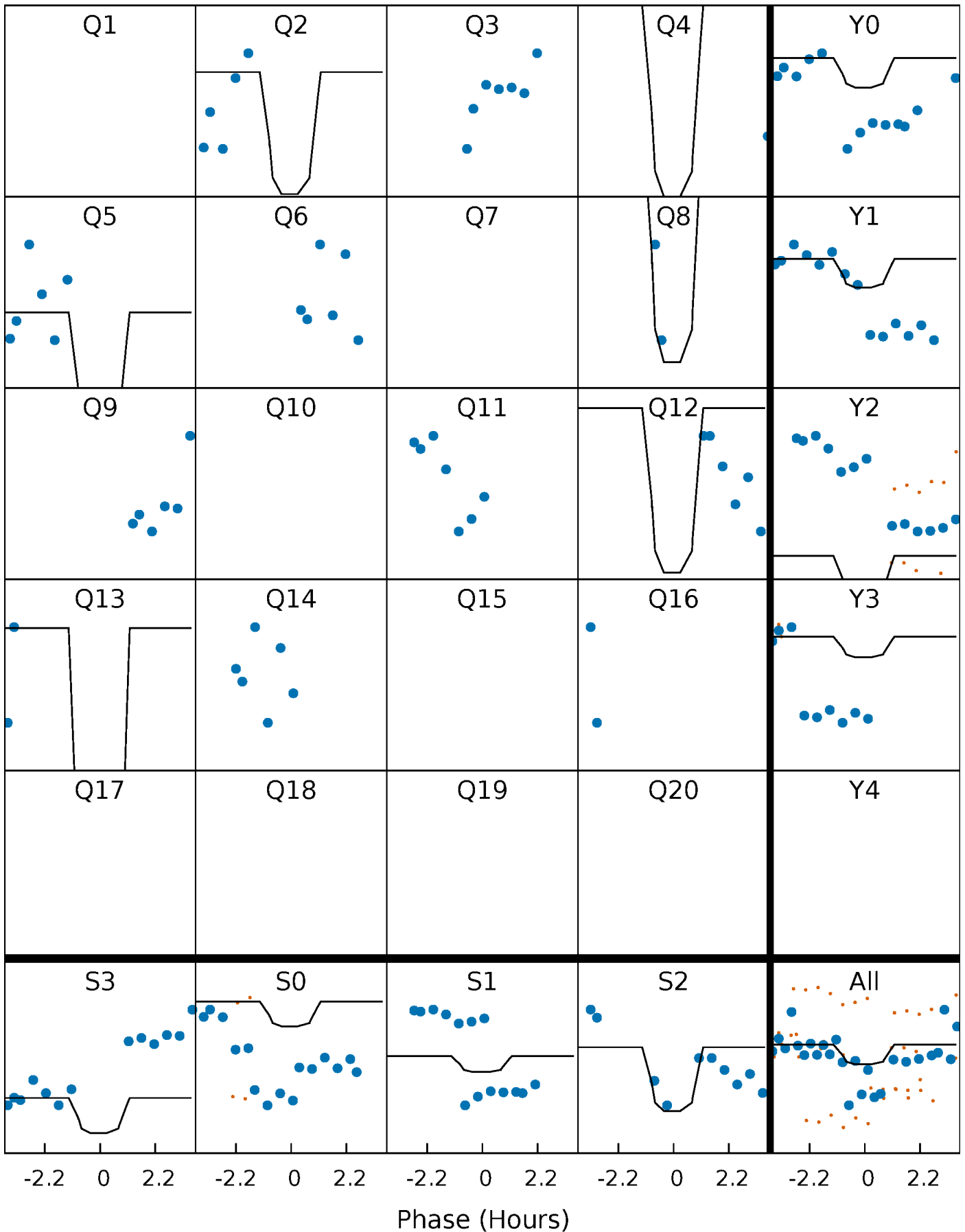
DV Quarter-Phased Transit Curves

TCE 007176268-09 P= 58.906583 Days $T_0=179.024332$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

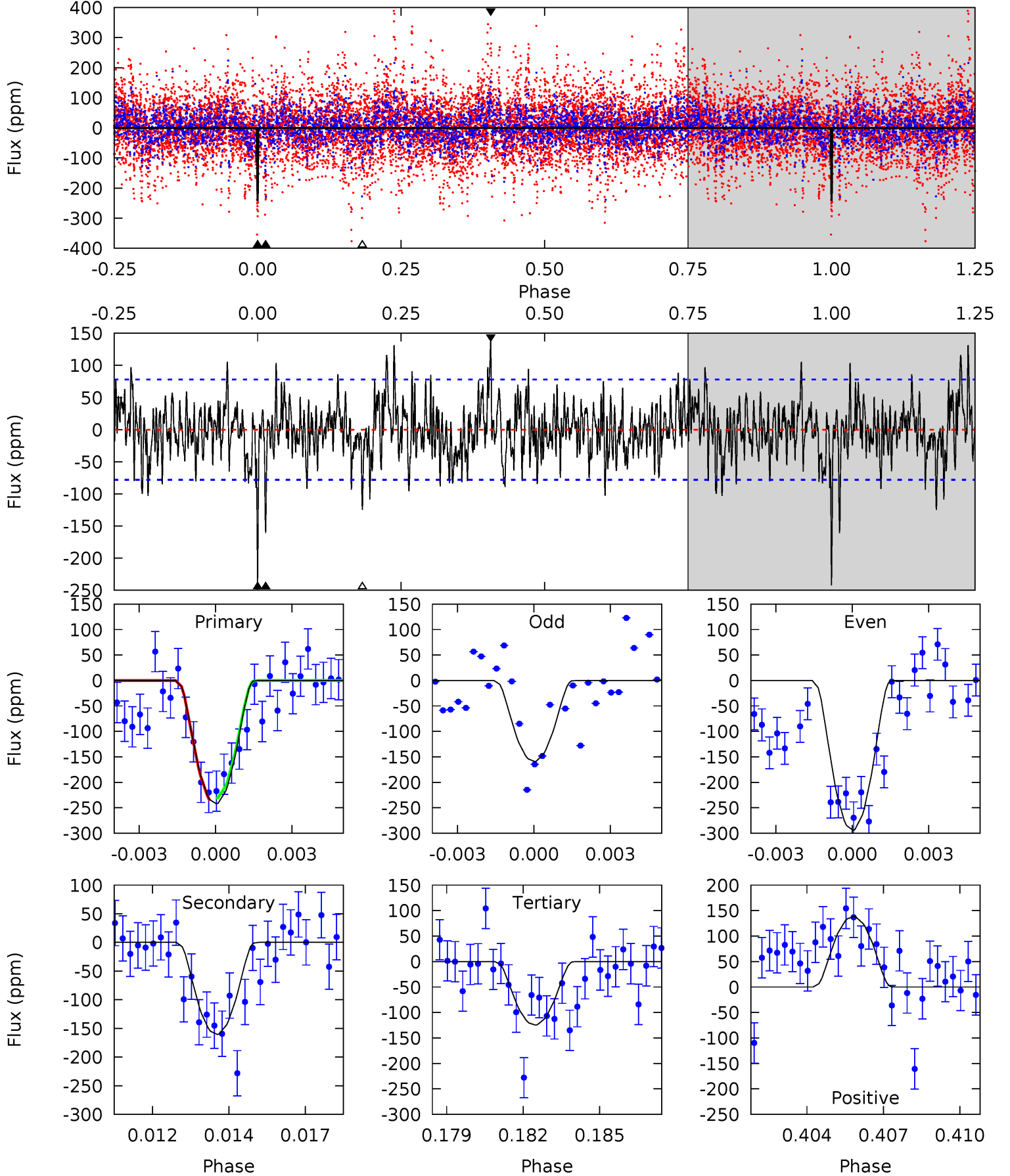
TCE 007176268-09 P= 58.910436 Days $T_0=178.988410$ (BKJD)



DV Model-Shift Uniqueness Test

007176268-09, P = 58.906583 Days, E = 120.117749 Days

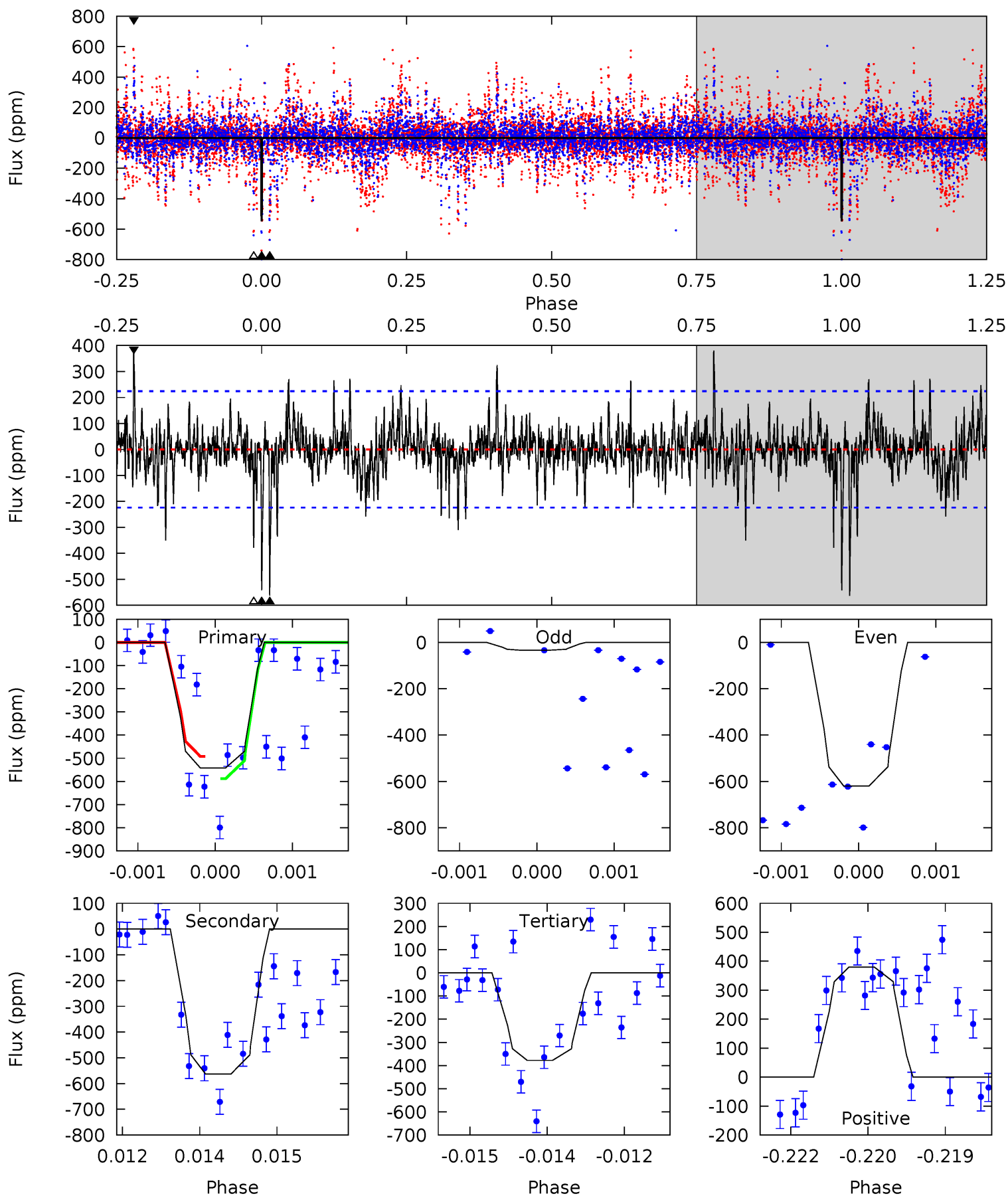
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.3	10.8	8.41	9.34	5.26	2.98	2.45	7.93	7.00	2.41	1.49	4.48	0.96	0.36	0.16



Alt Model-Shift Uniqueness Test

007176268-09, P = 58.910436 Days, E = 120.077974 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	13.6	9.11	9.16	5.40	3.20	1.73	3.95	3.90	4.46	4.42	5.97	0.63	0.40	1.18



Stellar Parameters For KIC 007176268

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6698^{+151}_{-184}	$3.945^{+0.240}_{-0.129}$	$-0.140^{+0.300}_{-0.250}$	$2.138^{+0.501}_{-0.613}$	$1.469^{+0.186}_{-0.256}$	$0.212^{+0.314}_{-0.082}$
	+2%/-3%	+6%/-3%	+214%/-179%	+23%/-29%	+13%/-17%	+148%/-39%
Source	PHO1	FLK73	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 007176268-09 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-161 ± 15	$7.45^{+6.33}_{-4.95}$	1028^{+64}_{-86}	4378^{+2697}_{-870}	183^{+1344}_{-130}
Alt.	-563 ± 41	$6.33^{+6.85}_{-4.31}$	1027^{+70}_{-82}	6174^{+7148}_{-1702}	853^{+7990}_{-654}

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

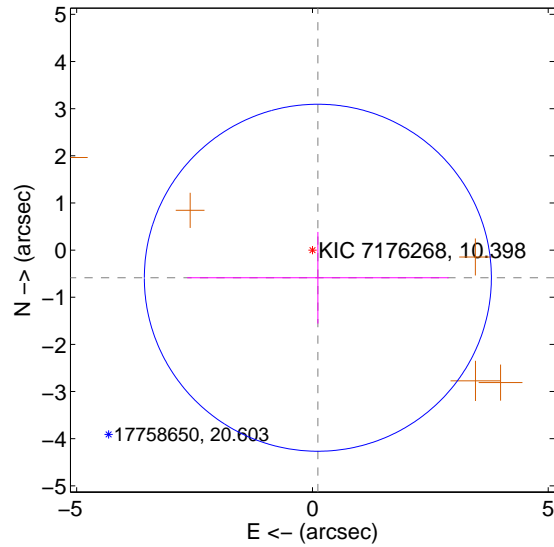
Supplemental centroid analysis for 007176268-09. **Kepler magnitude: 10.40.** Transit SNR 7.36

There are 0 quarters with good PRF difference image offsets

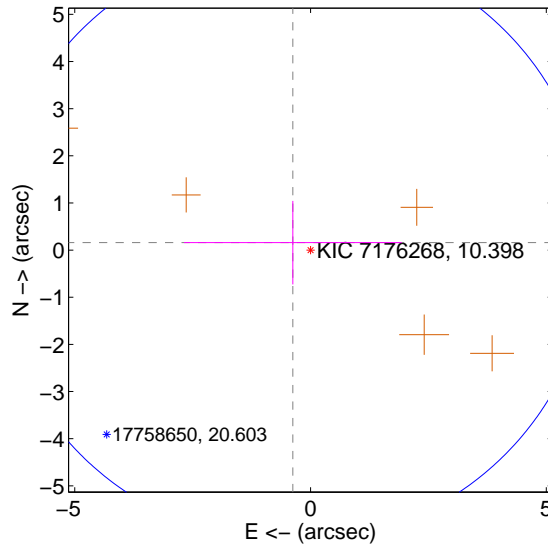
The direct PRF centroid is offset from the target star catalog position by about 0.80 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.597 ± 1.227	0.49	-0.115 ± 2.772	-0.586 ± 0.972
PRF-fit source offset from KIC position	0.407 ± 2.121	0.19	0.375 ± 2.309	0.158 ± 0.886
photometric centroid source offset	0.48 ± 0.63	0.76	0.48 ± 0.63	-0.02 ± 0.45

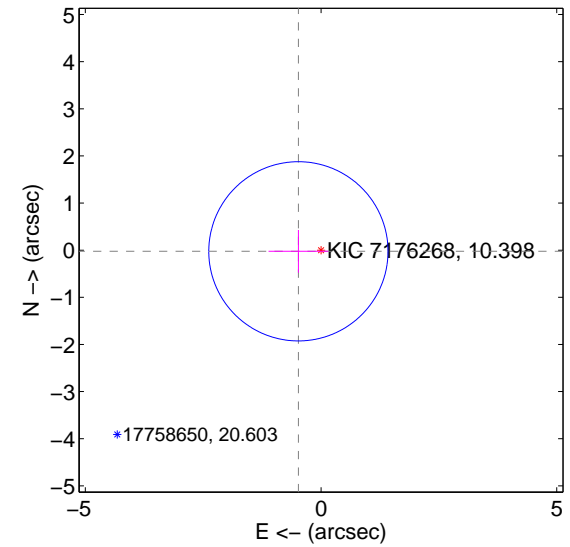
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

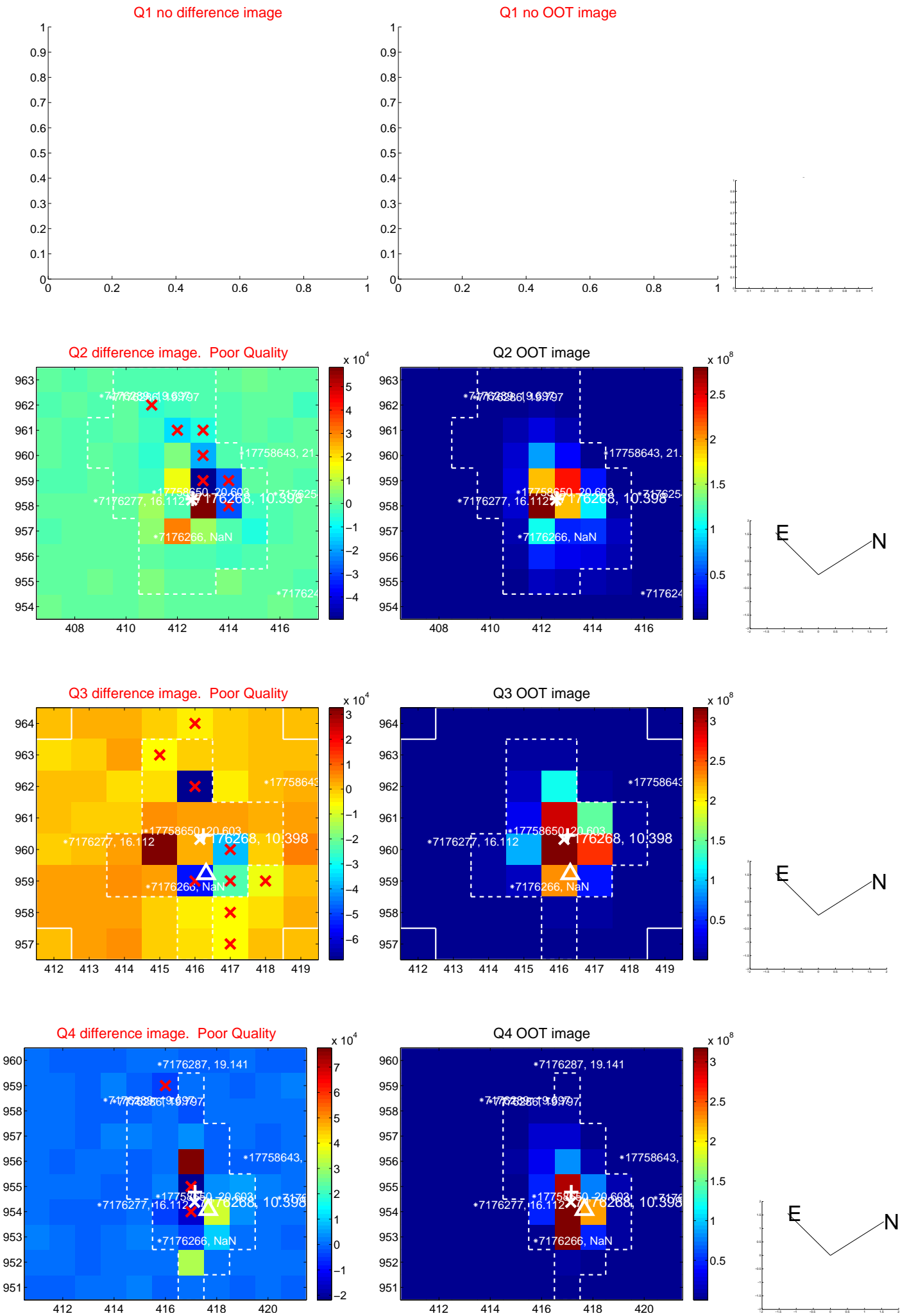


offset from photometric centroids

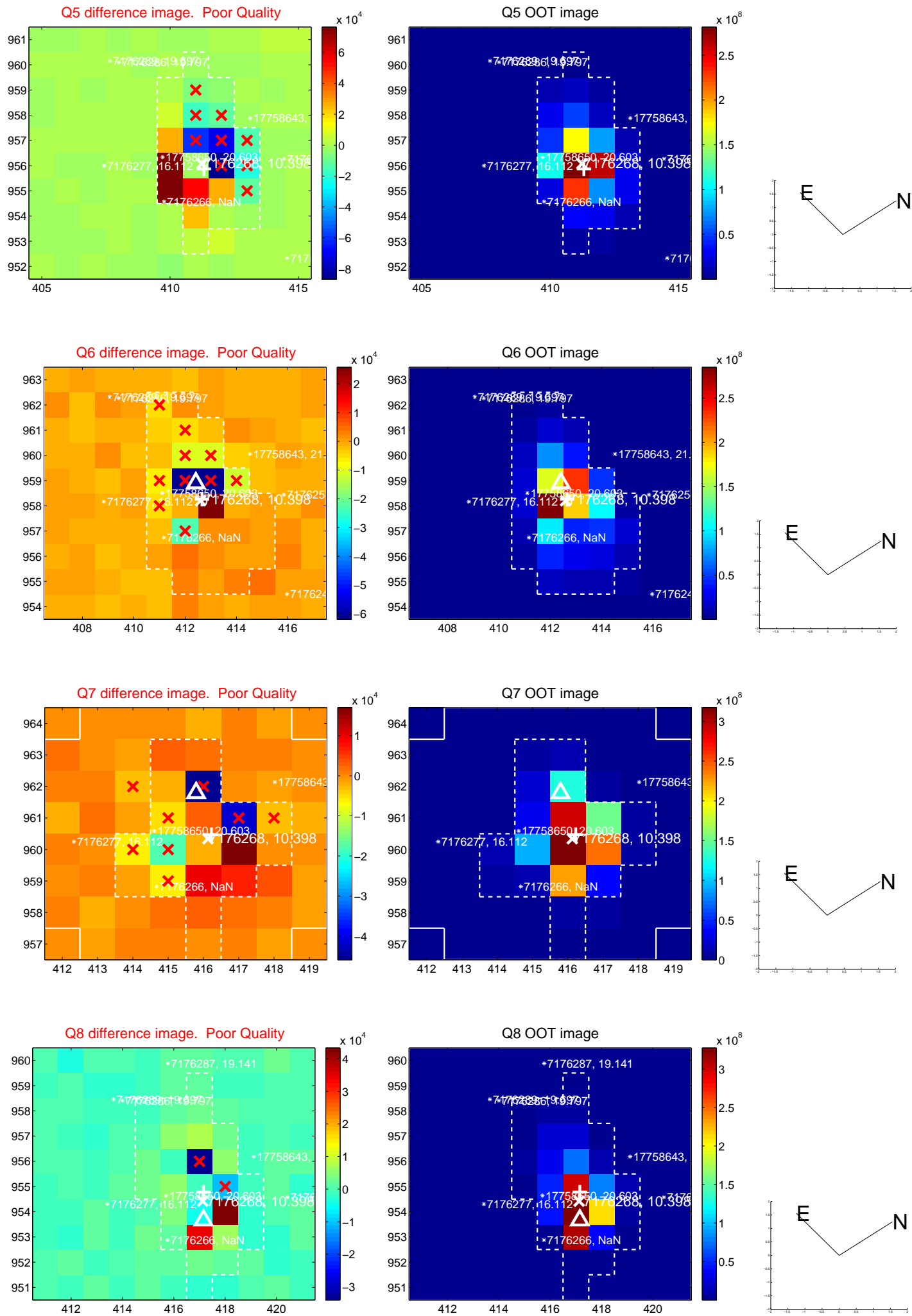


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

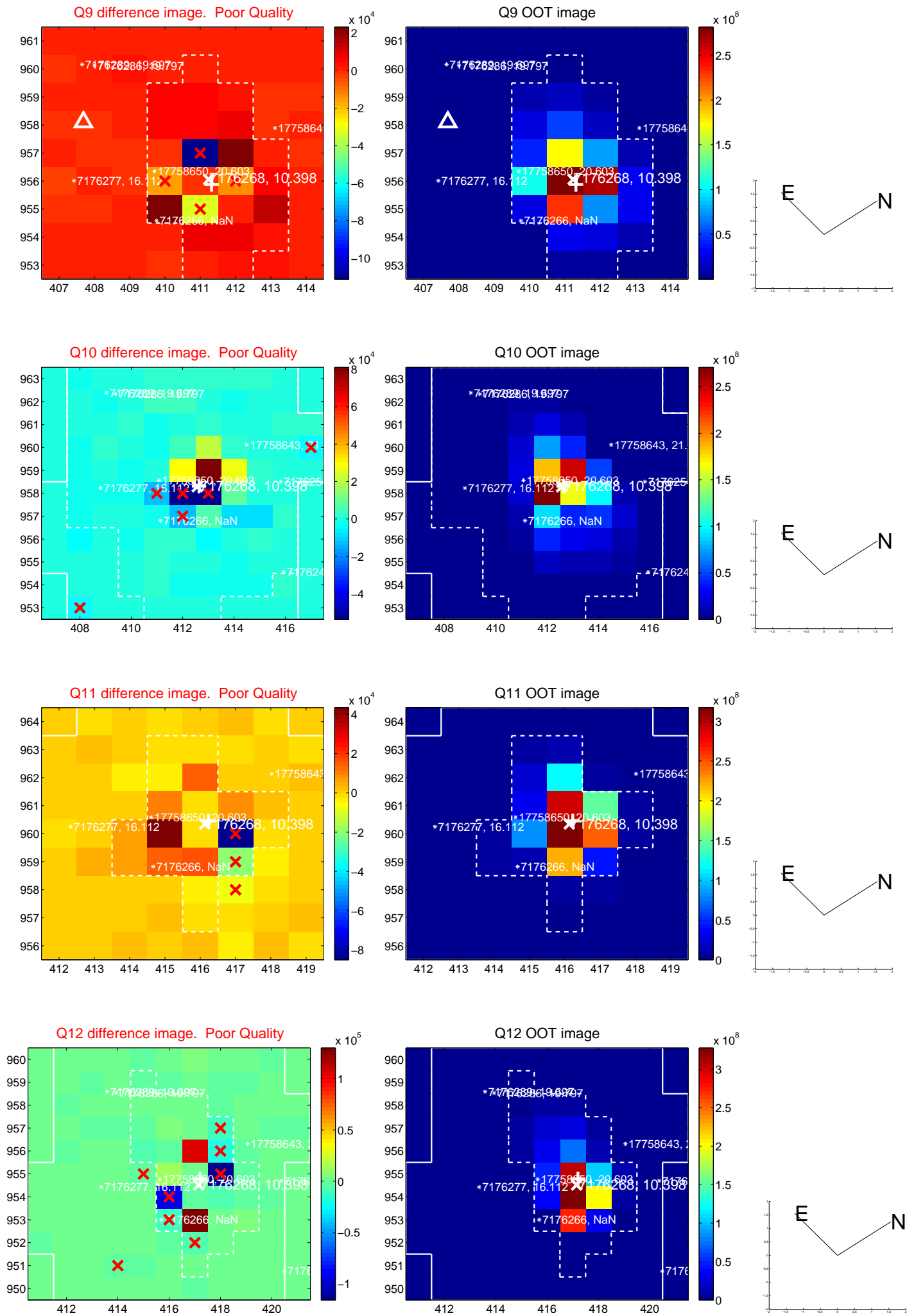
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



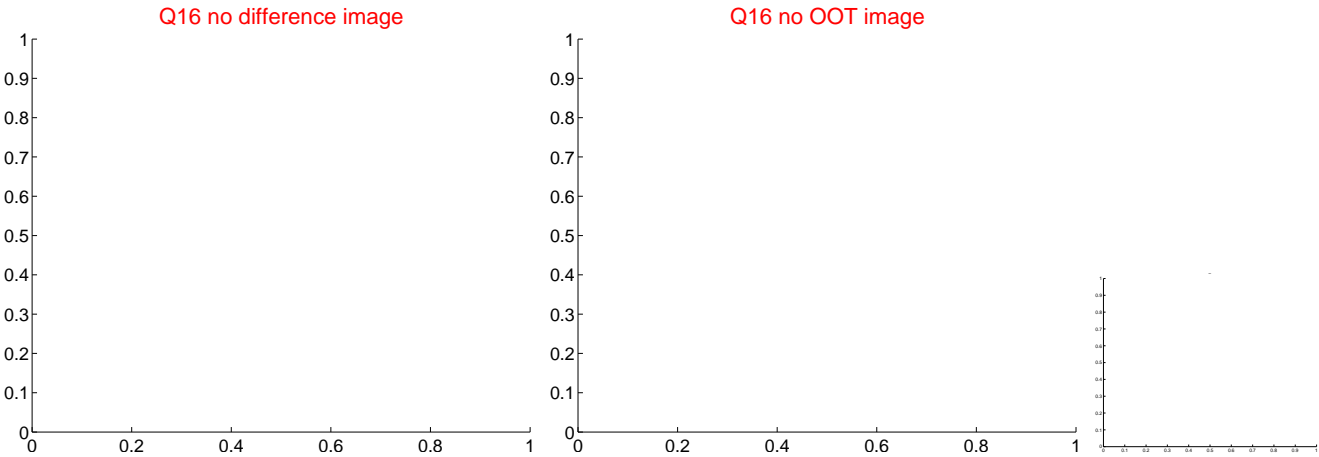
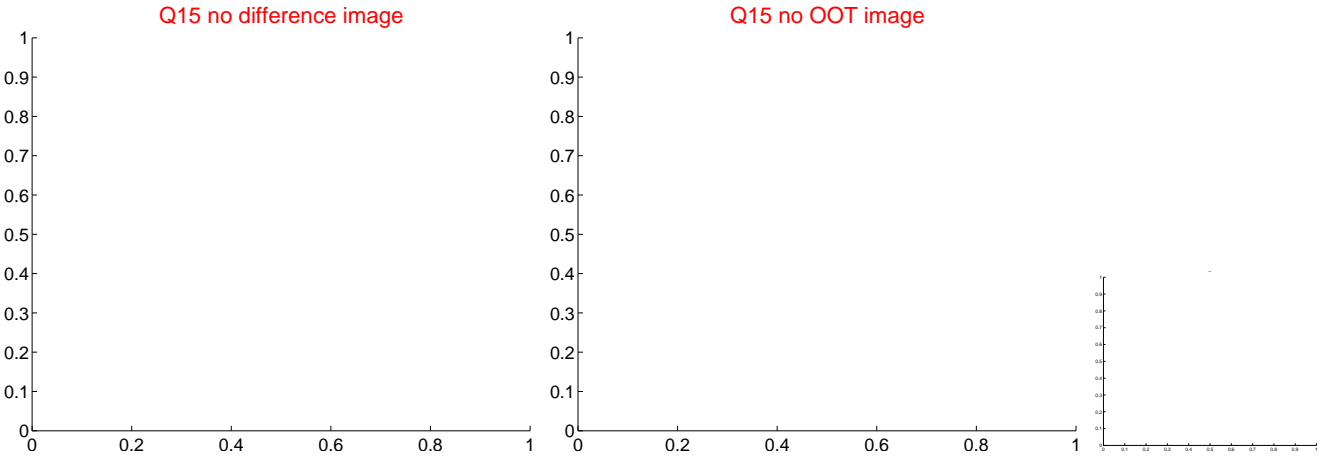
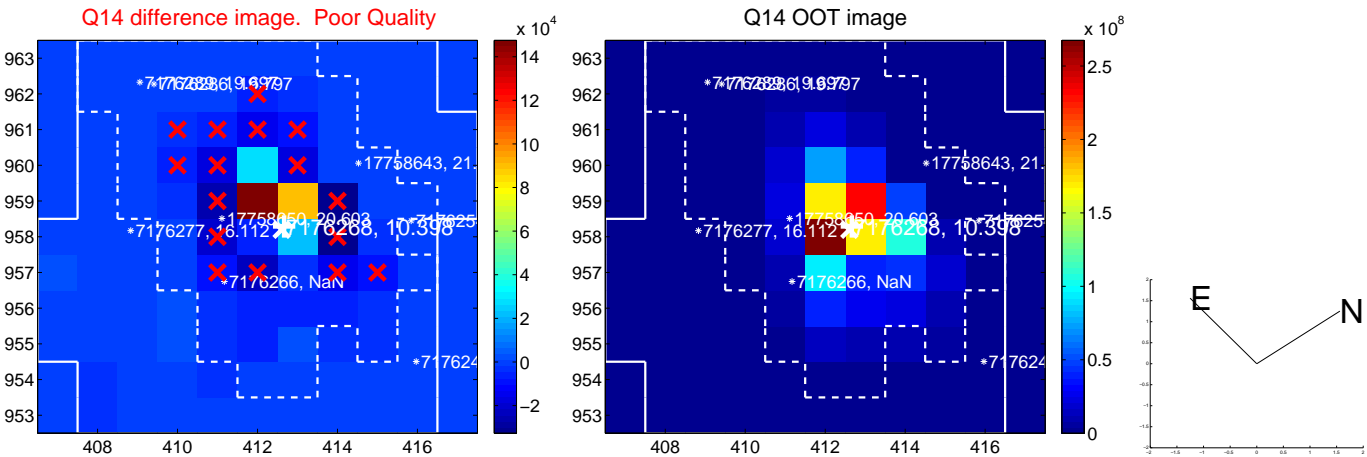
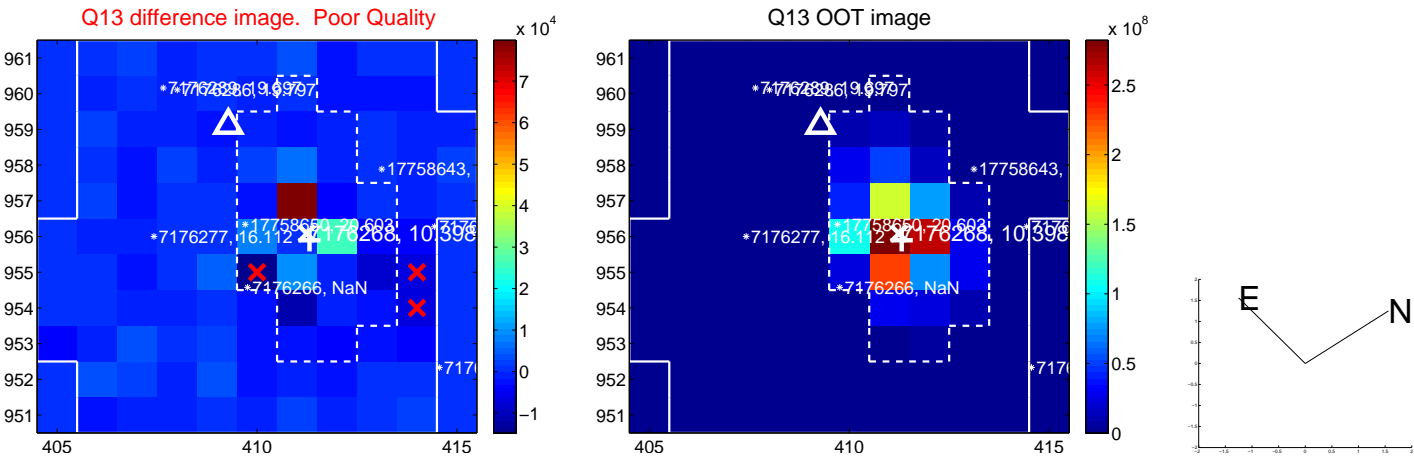
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



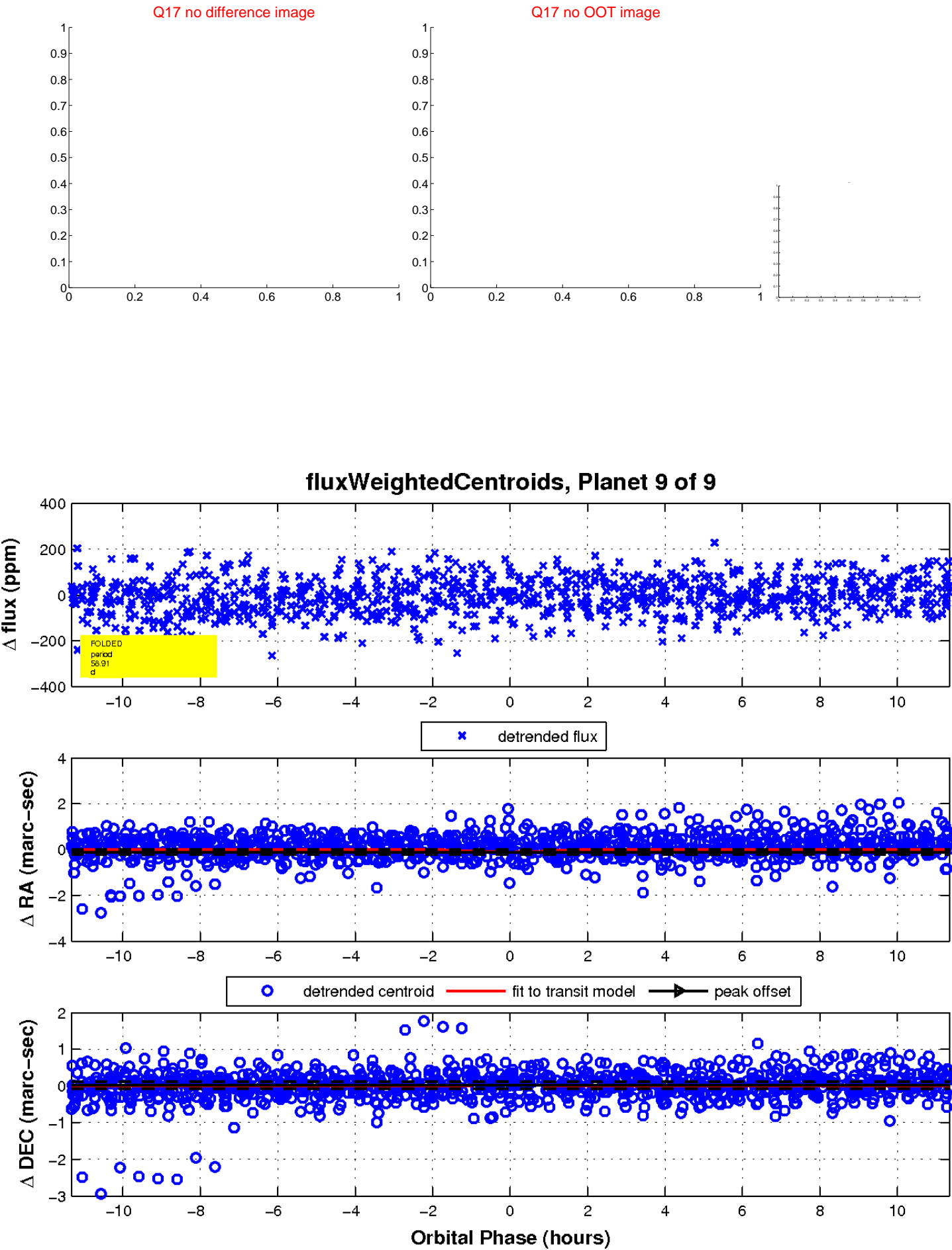
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

