

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})
010552700-01	OBS	7342.01	0.947637	131.958058	3.9	5.827	10.7	2.8	2.86	6875	0.66	30174.11
010552700-02	OBS	No	46.382972	162.859199	245.5	1.305	9.4	12.1	2.86	6875	5.08	168.53
010552700-03	OBS	No	135.910835	169.141834	206.3	2.598	8.9	7.9	2.86	6875	4.78	40.19
010552700-04	OBS	No	414.093817	367.252579	237.0	16.216	8.1	7.3	2.86	6875	5.10	9.10
010552700-05	OBS	No	43.917309	161.103293	147.1	1.700	8.6	8.6	2.86	6875	3.99	181.26
010552700-06	OBS	No	53.247872	151.349957	91.0	7.054	8.8	6.3	2.86	6875	2.96	140.20
010552700-07	OBS	No	85.256851	152.433220	118.1	3.369	8.6	5.8	2.86	6875	3.38	74.85
010552700-08	OBS	No	21.570584	139.269988	71.5	2.686	8.6	6.6	2.86	6875	2.83	467.74
010552700-09	OBS	No	46.327798	145.577777	109.3	1.551	8.6	5.5	2.86	6875	3.38	168.80
010552700-10	OBS	No	58.468746	146.900902	150.9	2.910	7.9	7.3	2.86	6875	4.03	123.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010552700-01	OBS	FP	0.00	1	0	0	0	LPP_DV
010552700-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
010552700-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
010552700-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
010552700-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV
010552700-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
010552700-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET—HALO_GHOST
010552700-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
010552700-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
010552700-10	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST

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

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

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

Ephemeris Match Information For 010552700-01

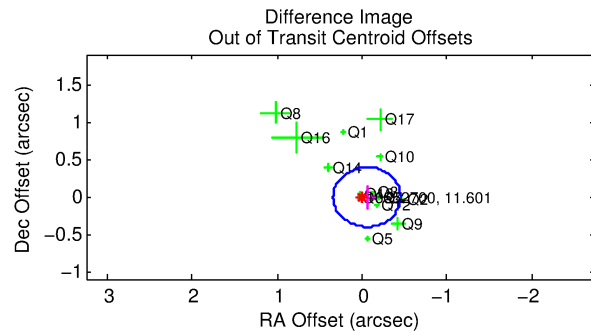
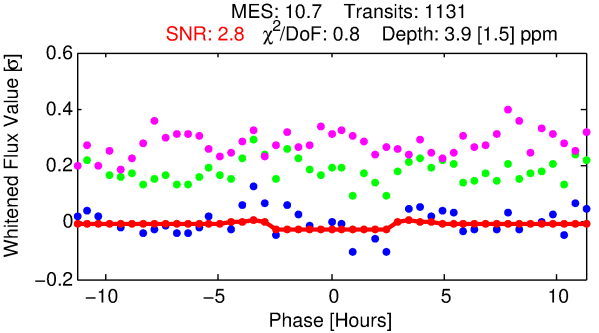
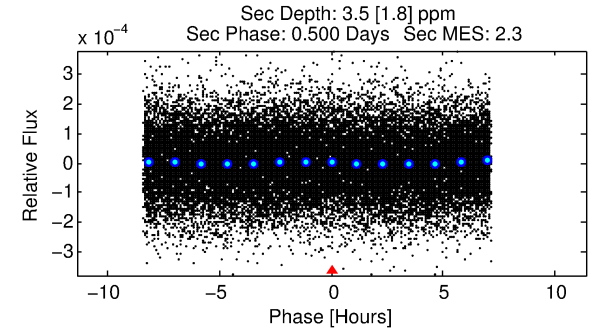
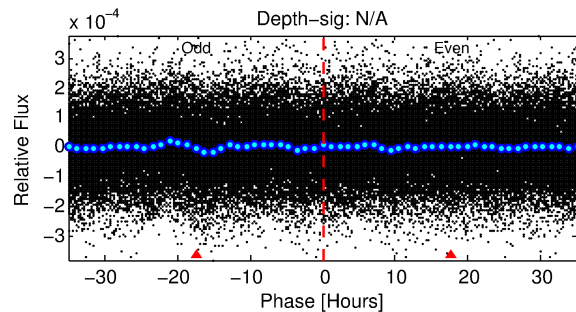
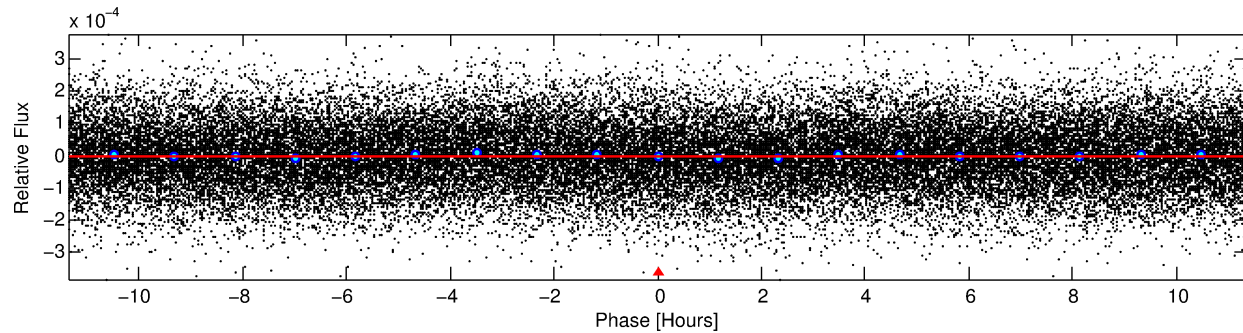
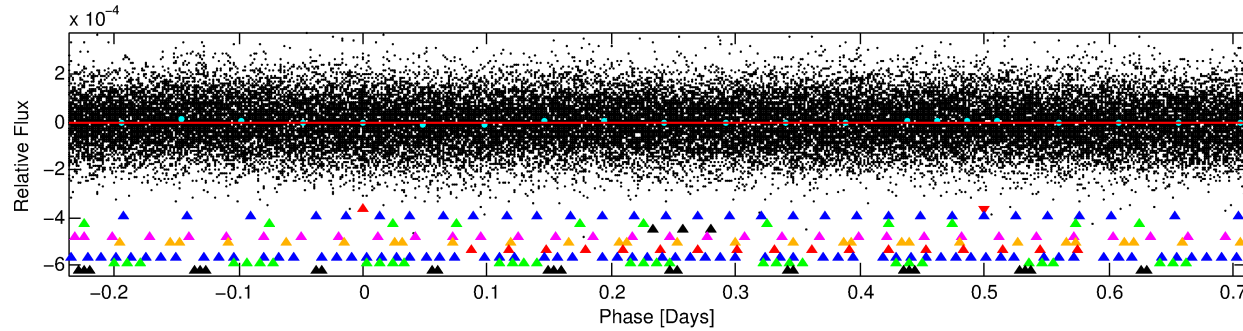
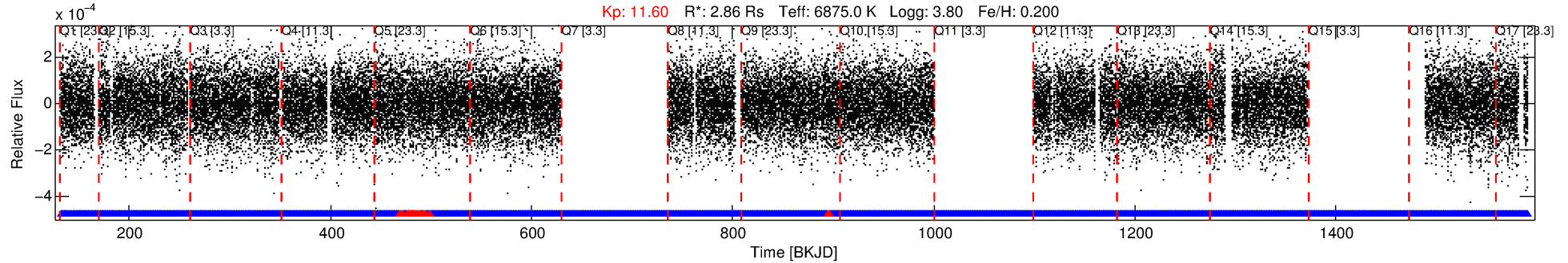
No Significant Match Found

DV One-Page Summary

KIC: 10552700 Candidate: 1 of 10 Period: 0.948 d

KOI: K07342 Corr: No Ephemeris Match

Kp: 11.60 R*: 2.86 Rs Teff: 6875.0 K Logg: 3.80 Fe/H: 0.200



DV Fit Results:

Period = 0.94764 [0.00005] d
Epoch = 131.9581 [0.0129] BKJD
Rp/R* = 0.0021 [0.0013]
a/R* = 1.09 [0.62]
b = 0.90 [0.78]
Seff = 30174.11 [14248.90]
Teq = 3361 [397] K
Rp = 0.66 [0.45] Re
a = 0.0233 [0.0069] AU
Ag = 2.45 [3.40] [0.43σ]
Teffp = 6500 [2145] K [1.44σ]

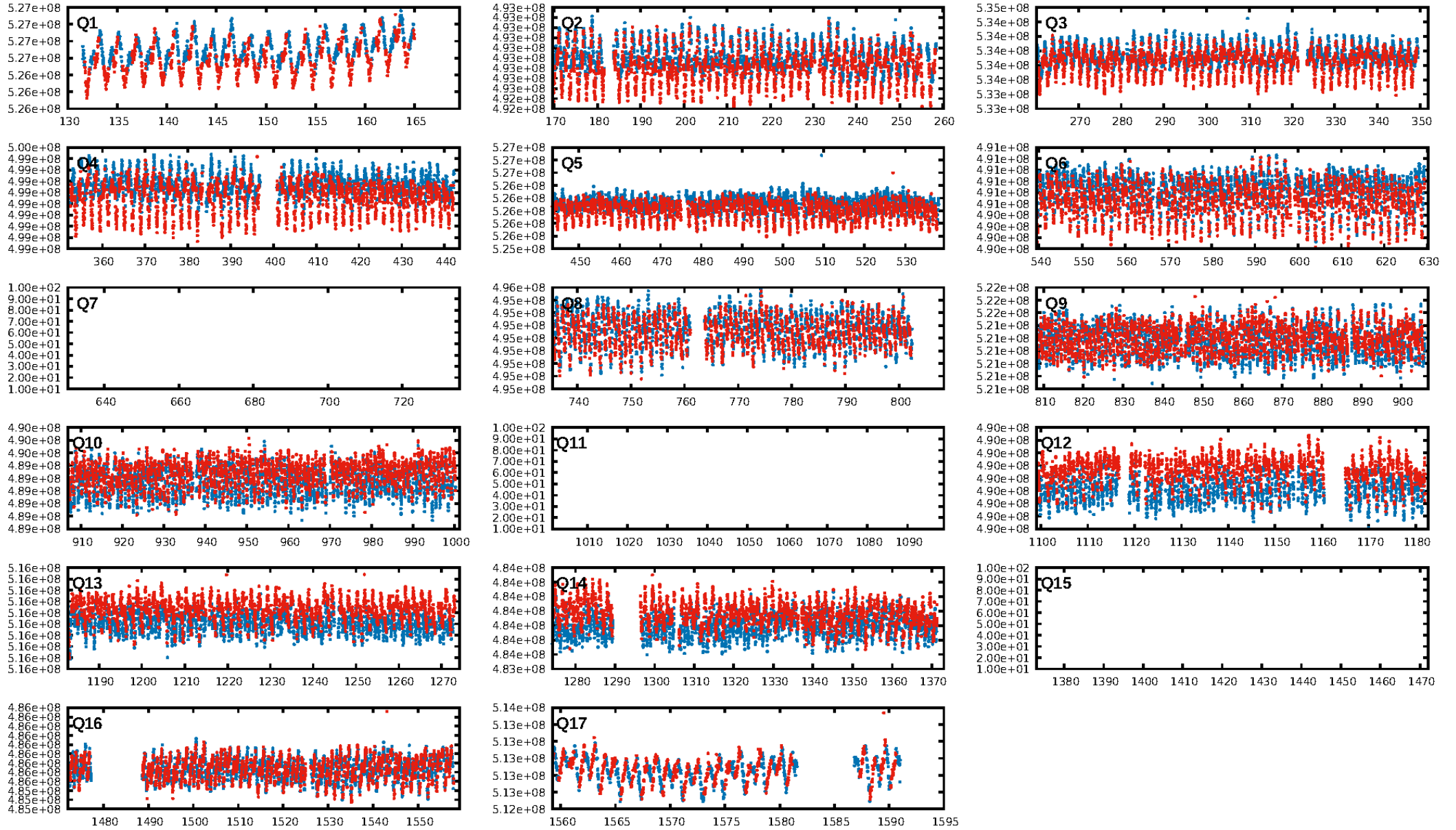
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [77.14σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.98 [1047/1069]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.059 arcsec [0.45σ]
KicOffset-rm: 0.161 arcsec [1.03σ]
OotOffset-st: 4/1/4/5 [14]
KicOffset-st: 4/1/4/5 [14]
DiffImageQuality-fgm: 0.50 [7/14]
DiffImageOverlap-fno: 1.00 [14/14]

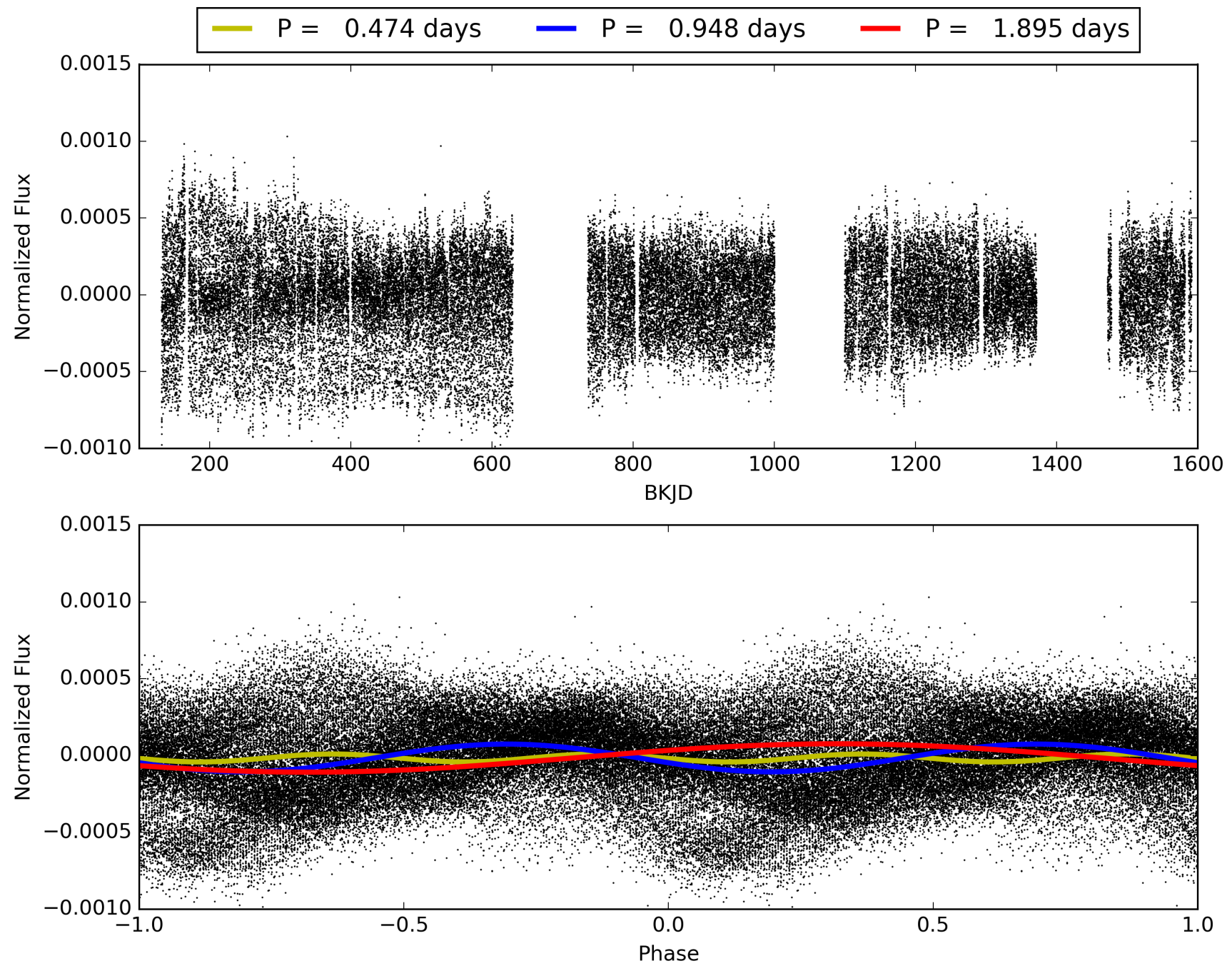
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:50:46 Z

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

TCE 010552700-01, PDC Light Curves

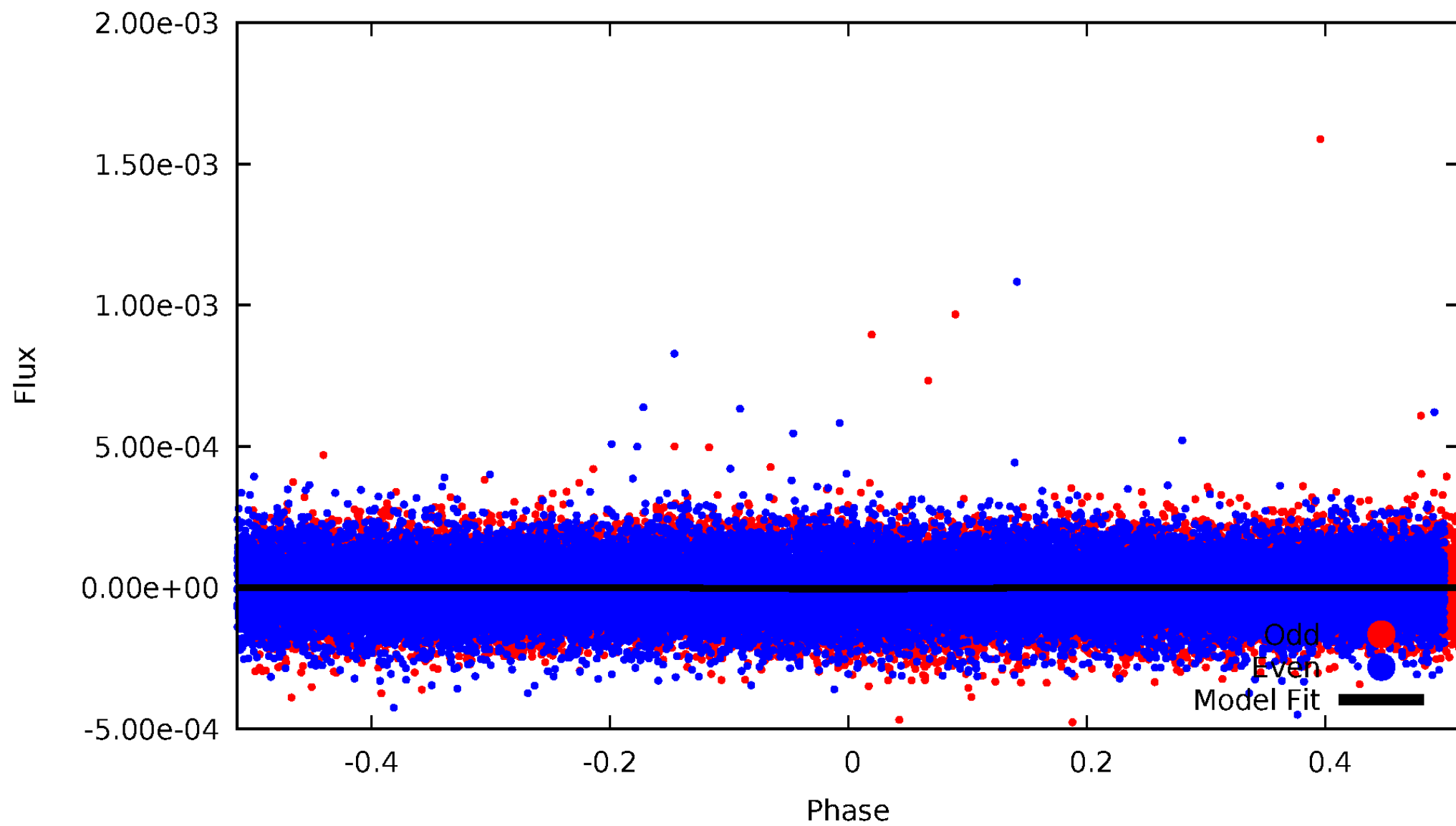


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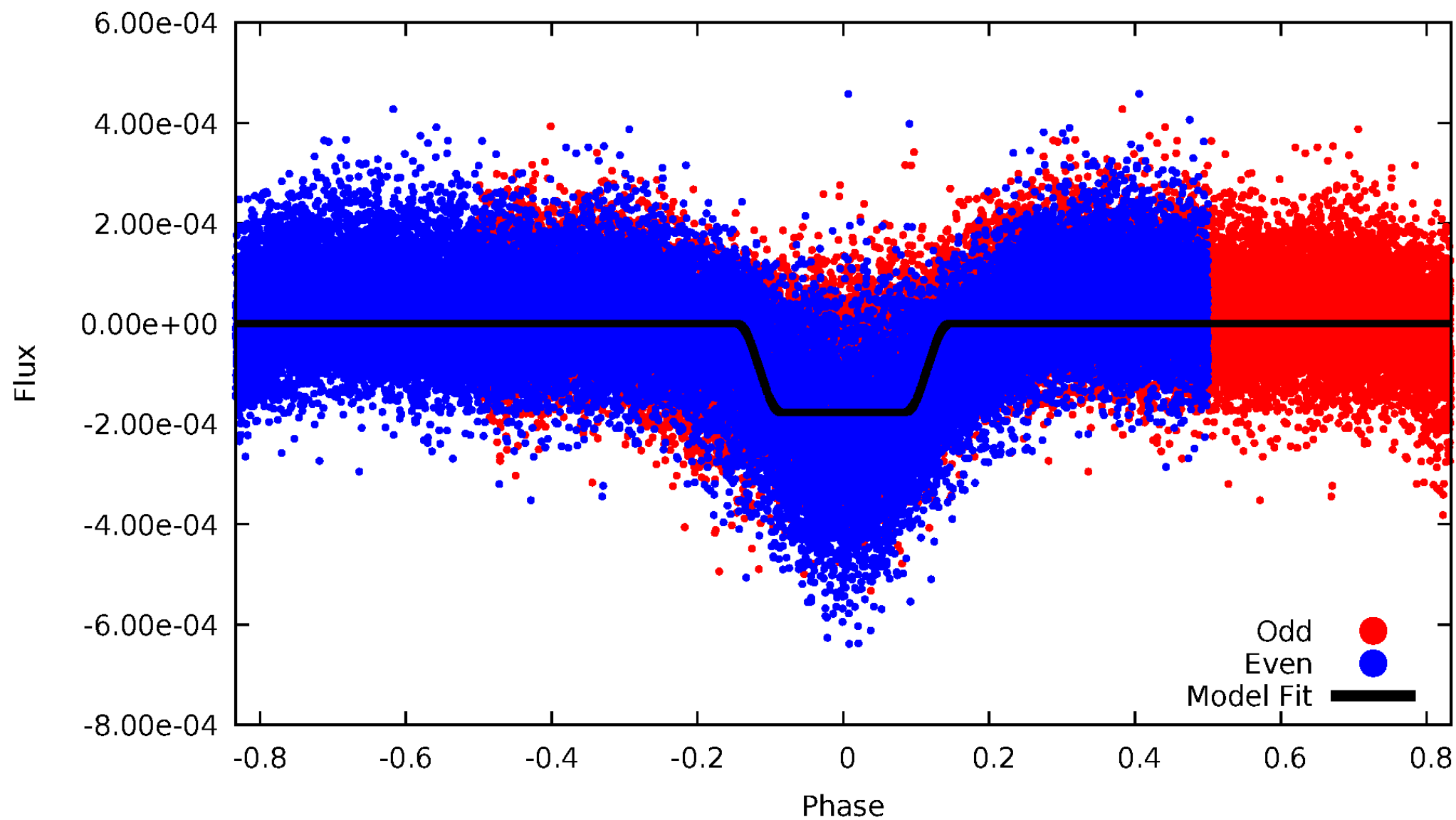
DV Odd/Even

TCE 010552700-01



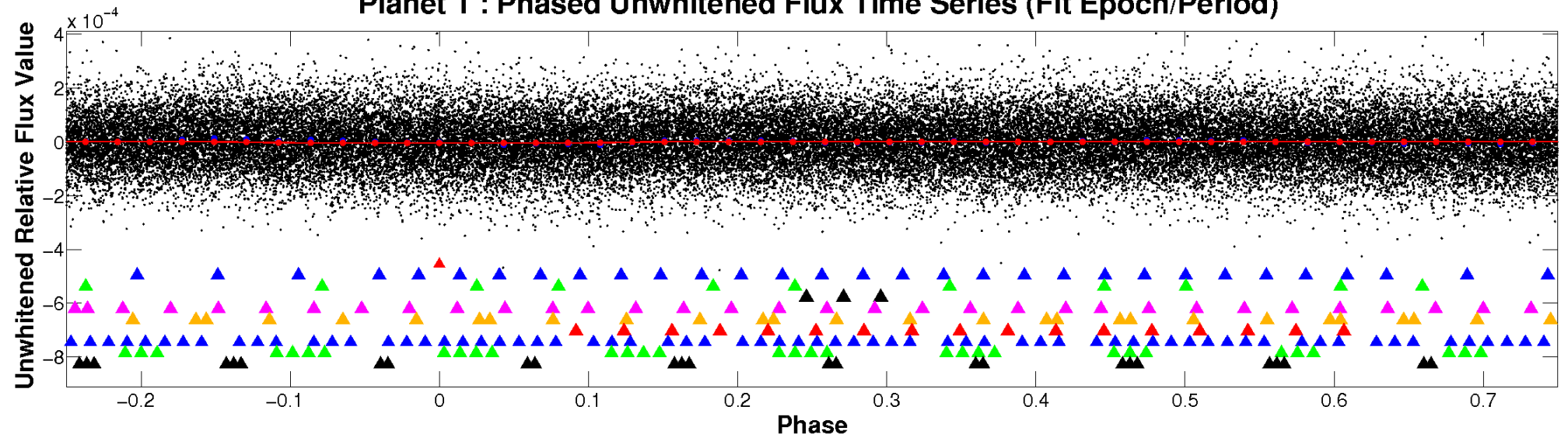
ALT Odd/Even

TCE 010552700-01

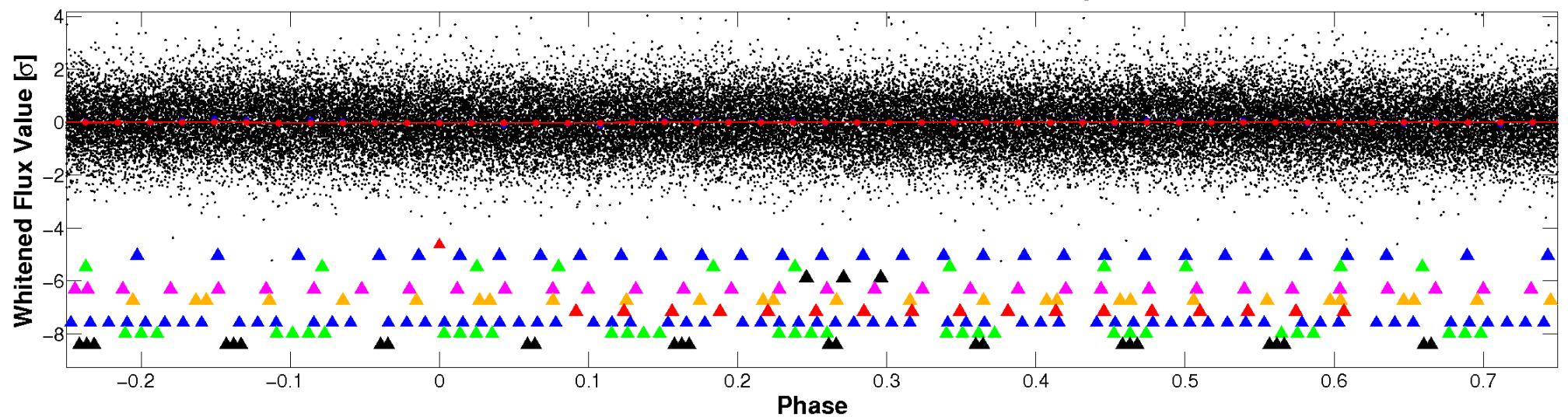


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

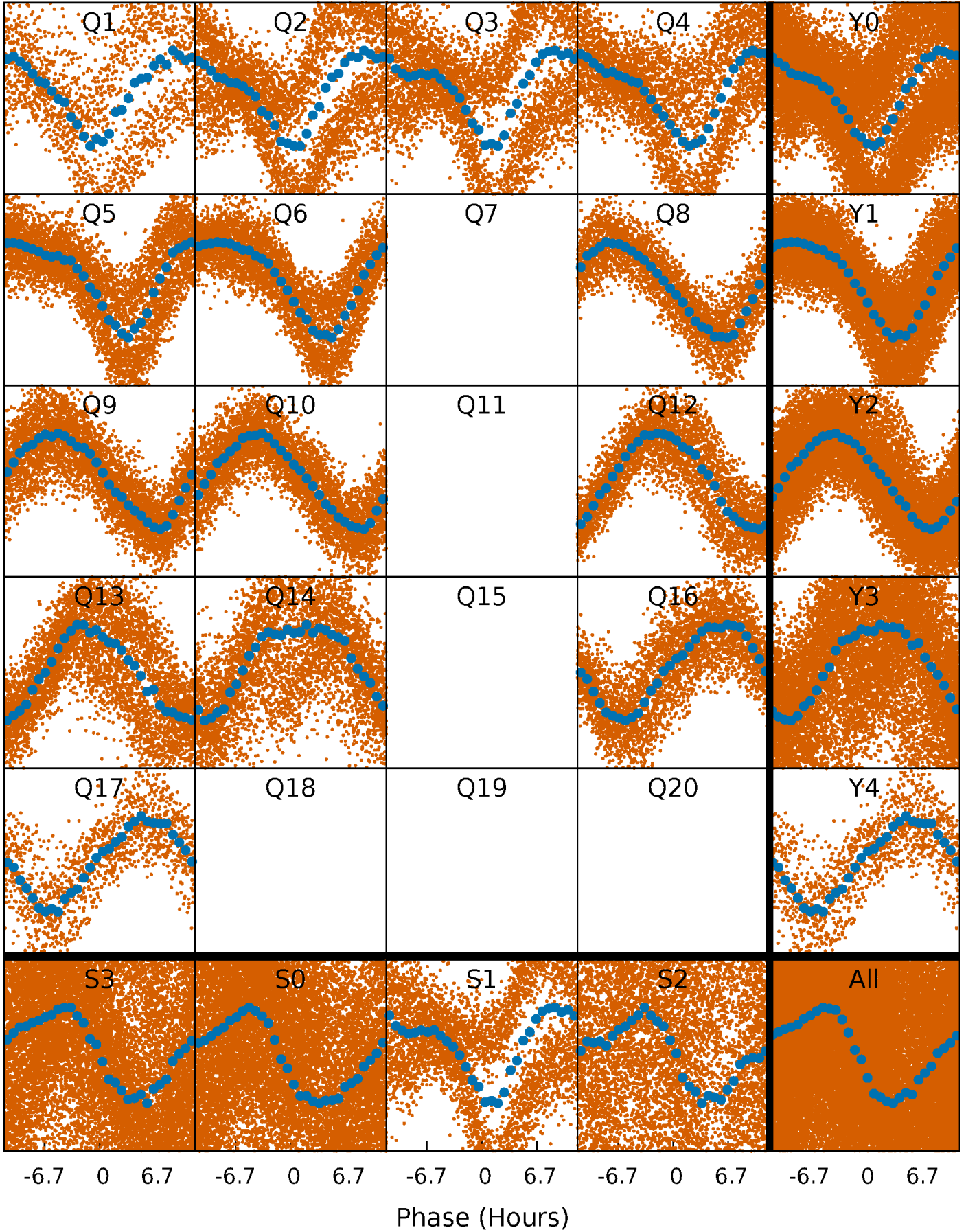


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



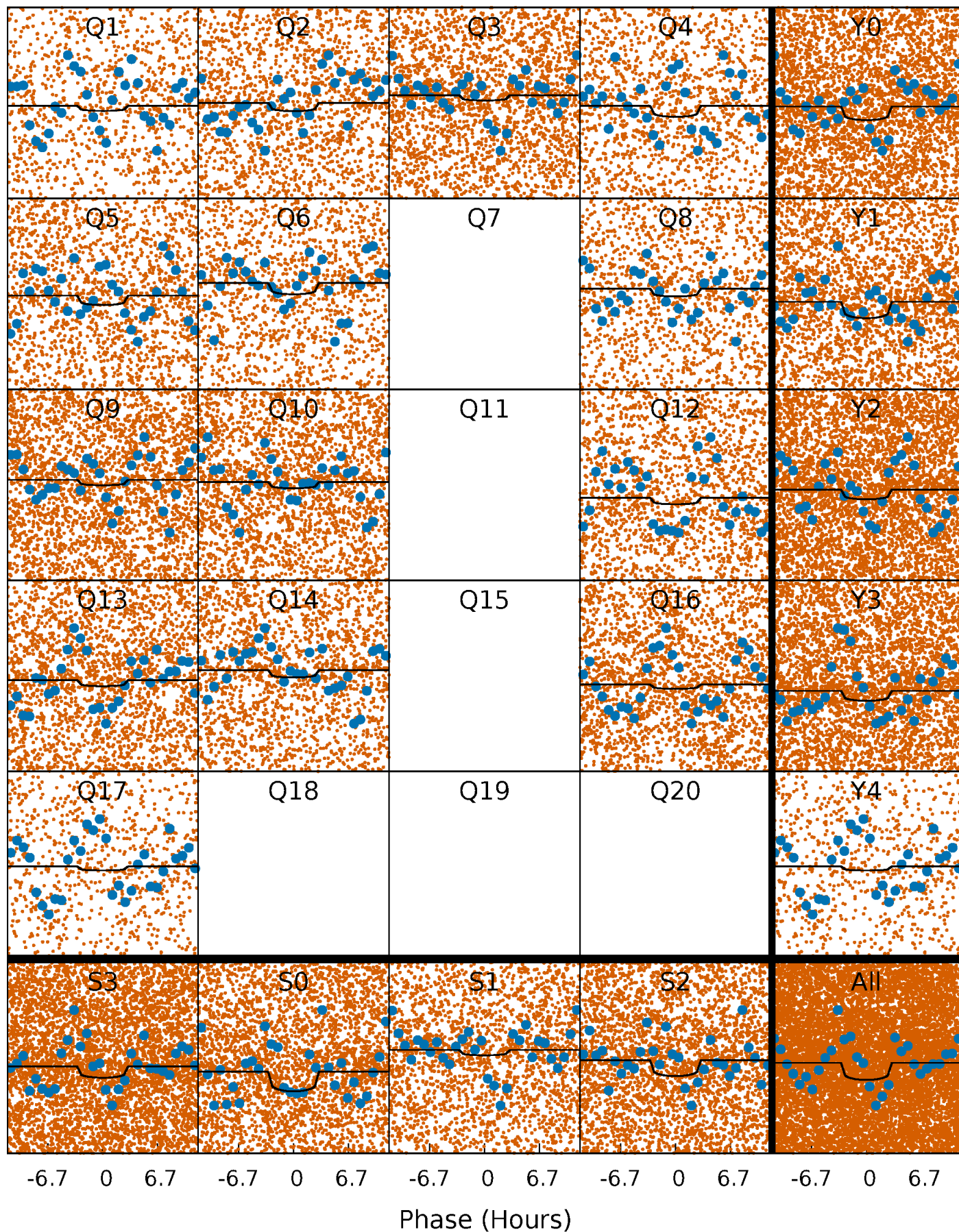
PDC Quarter-Phased Transit Curves

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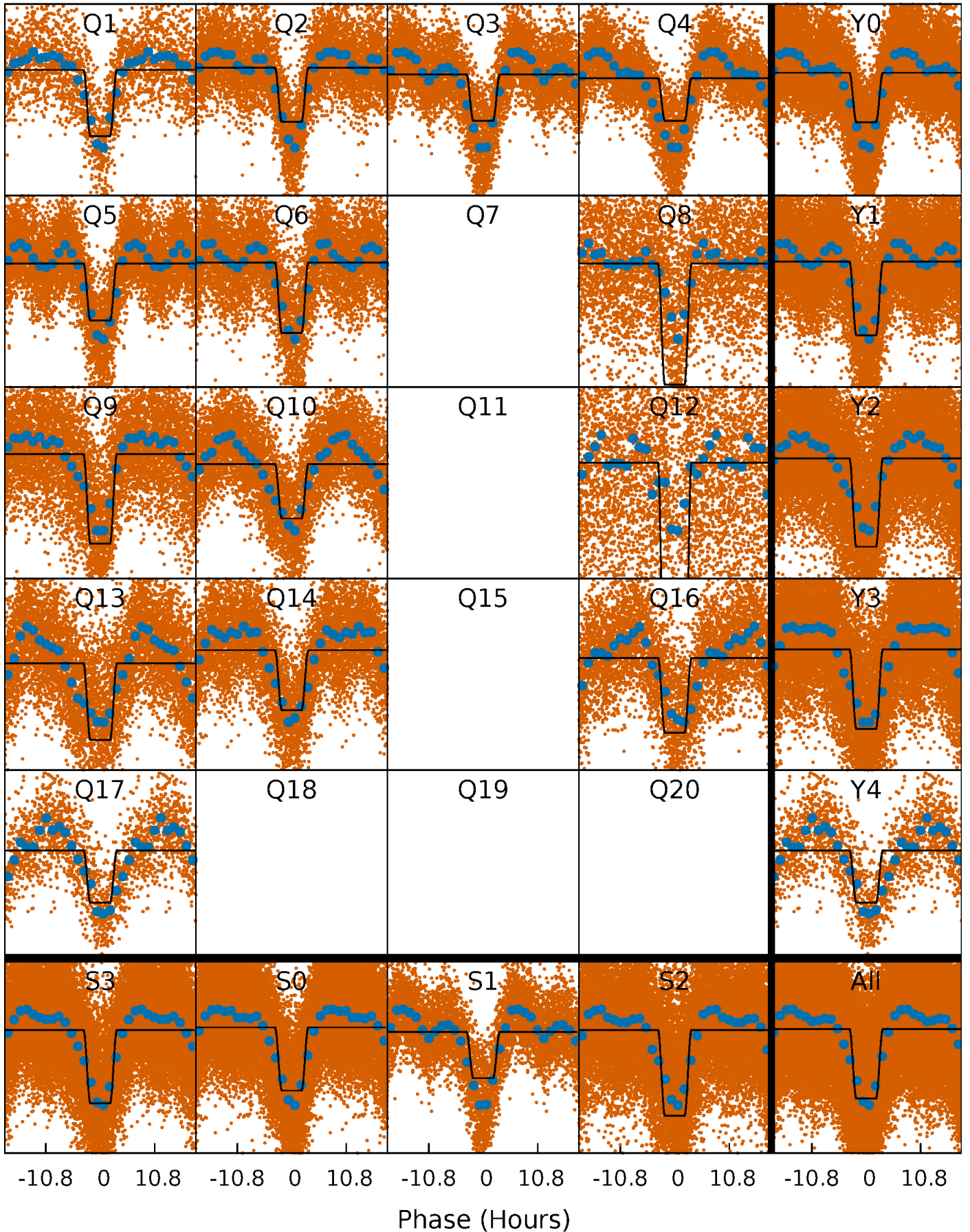
DV Quarter-Phased Transit Curves

TCE 010552700-01 P= 0.947637 Days $T_0=131.958057$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

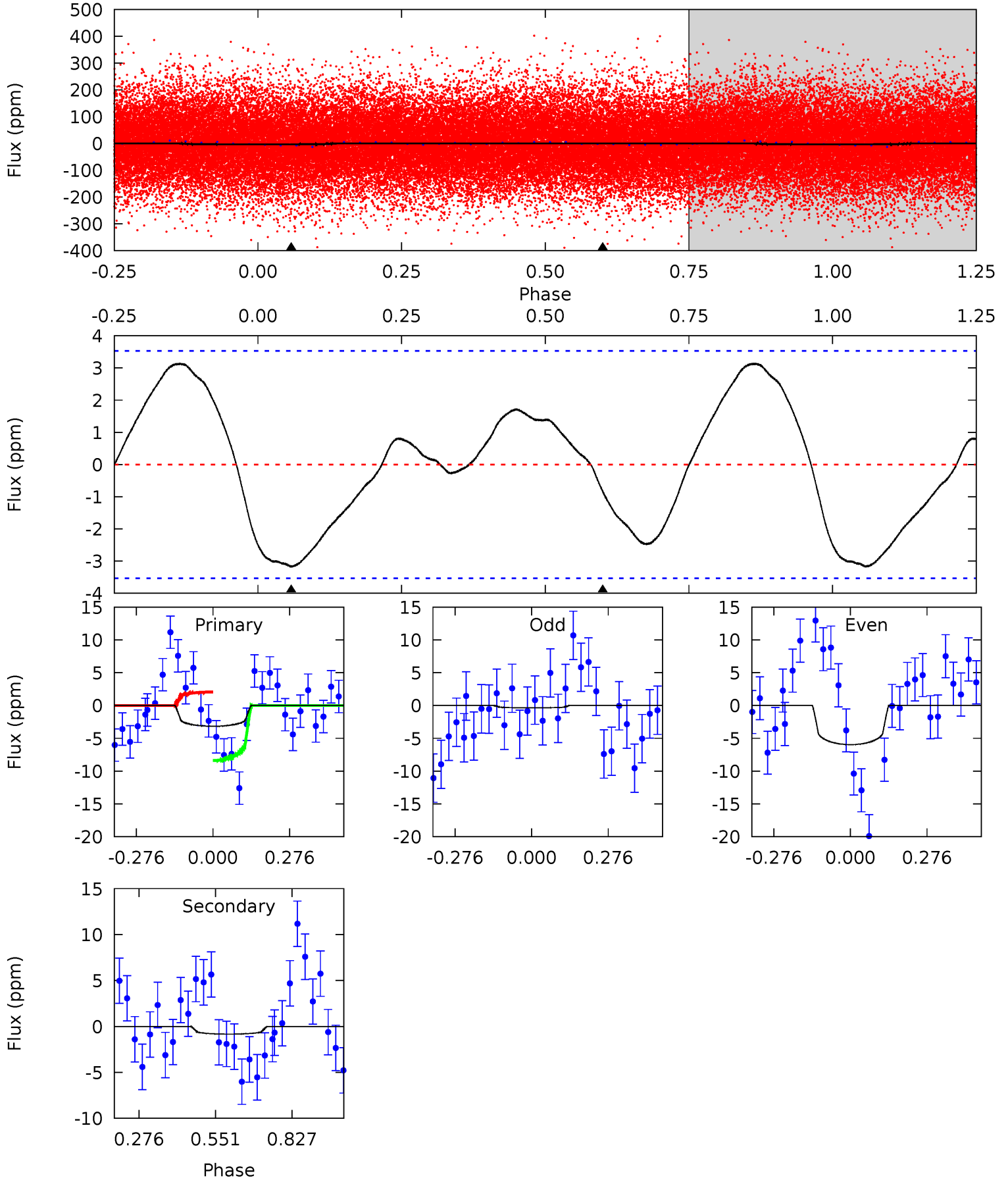
TCE 010552700-01 P= 0.948079 Days $T_0=131.937550$ (BKJD)



DV Model-Shift Uniqueness Test

010552700-01, $P = 0.947637$ Days, $E = 131.010420$ Days

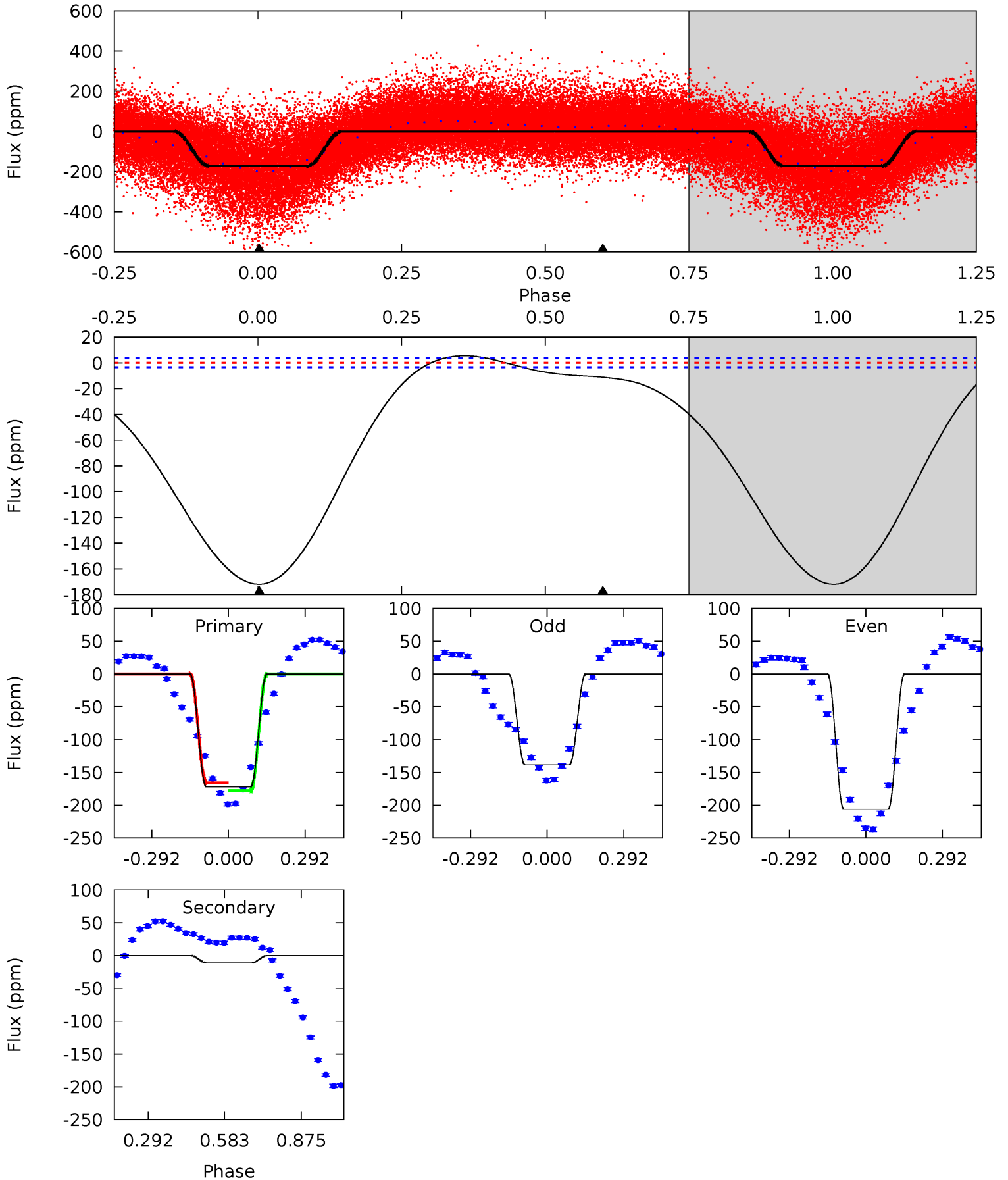
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.90	1.03	0	0	4.35	1.09	0.92	3.90	3.90	1.03	1.03	3.44	2.22	0.50	3.89



Alt Model-Shift Uniqueness Test

010552700-01, P = 0.948079 Days, E = 130.989471 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
215.2	14.0	0	0	4.33	1.05	8.13	215.2	215.2	14.0	14.0	42.3	1.04	0.03	7.77



Stellar Parameters For KIC 010552700

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6875^{+164}_{-226}	$3.798^{+0.259}_{-0.111}$	$0.200^{+0.200}_{-0.300}$	$2.856^{+0.503}_{-0.935}$	$1.868^{+0.180}_{-0.361}$	$0.113^{+0.194}_{-0.039}$
	+2%/-3%	+7%/-3%	+100%/-150%	+18%/-33%	+10%/-19%	+172%/-35%
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 010552700-01 / KOI 7342.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1 ± 1	$0.64^{+0.36}_{-0.33}$	4630^{+269}_{-385}	3616^{+2544}_{-7720}	$0.470^{+2.117}_{-0.473}$
Alt.	-11 ± 1	$4.04^{+0.64}_{-0.73}$	4631^{+274}_{-370}	-3369^{+1276}_{-357}	$0.204^{+0.092}_{-0.054}$

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

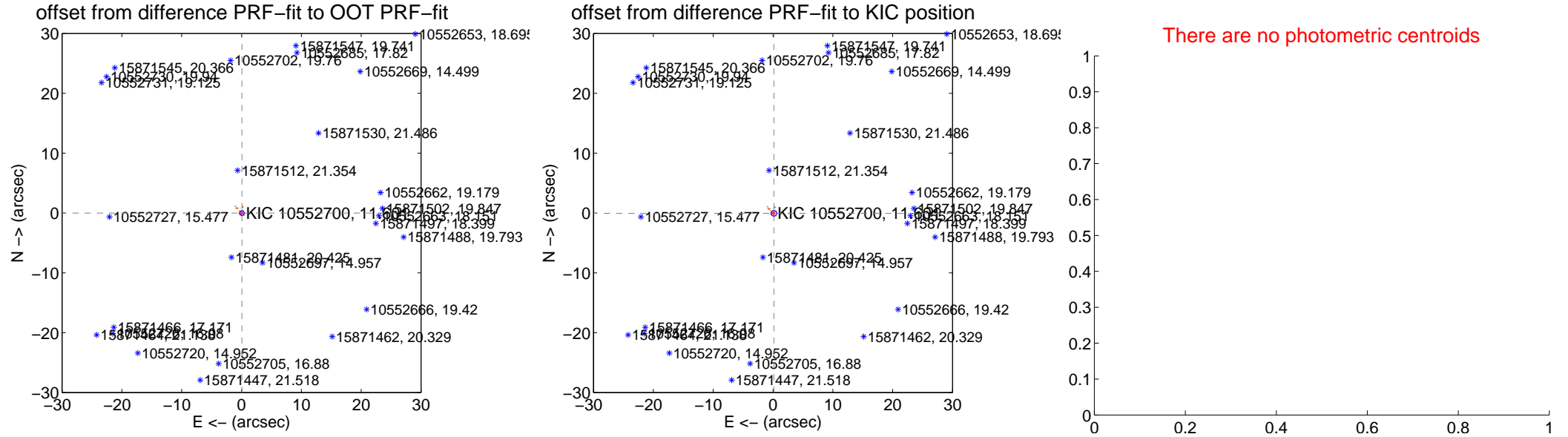
DV Centroid Data

Supplemental centroid analysis for 010552700-01. **Kepler magnitude: 11.60.** Transit SNR 2.78

There are 7 quarters with good PRF difference image offsets

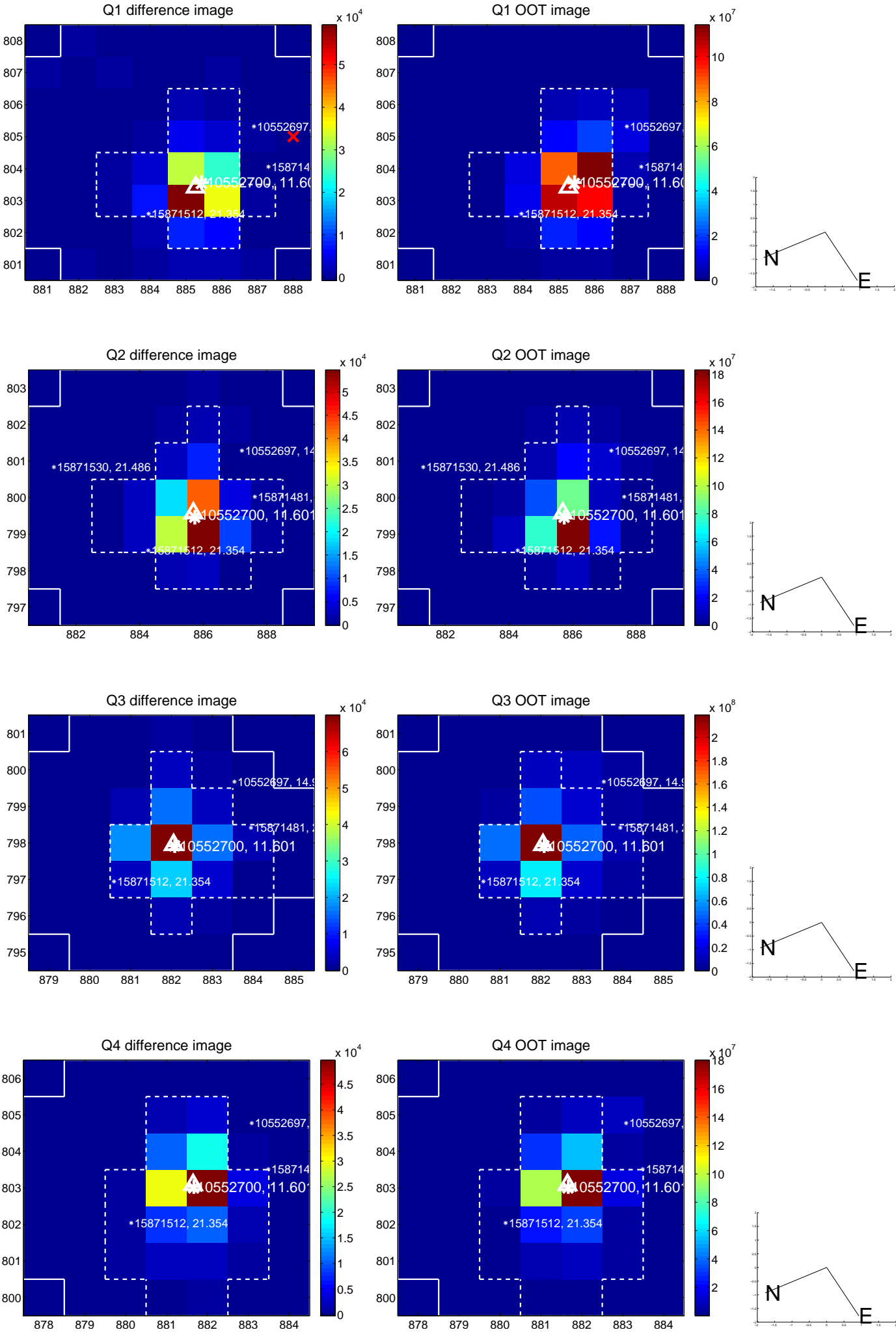
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.059 ± 0.133	0.45	-0.059 ± 0.123	-0.007 ± 0.151
PRF-fit source offset from KIC position	0.161 ± 0.157	1.03	-0.153 ± 0.133	-0.052 ± 0.151
photometric centroid source offset	—	—	—	—

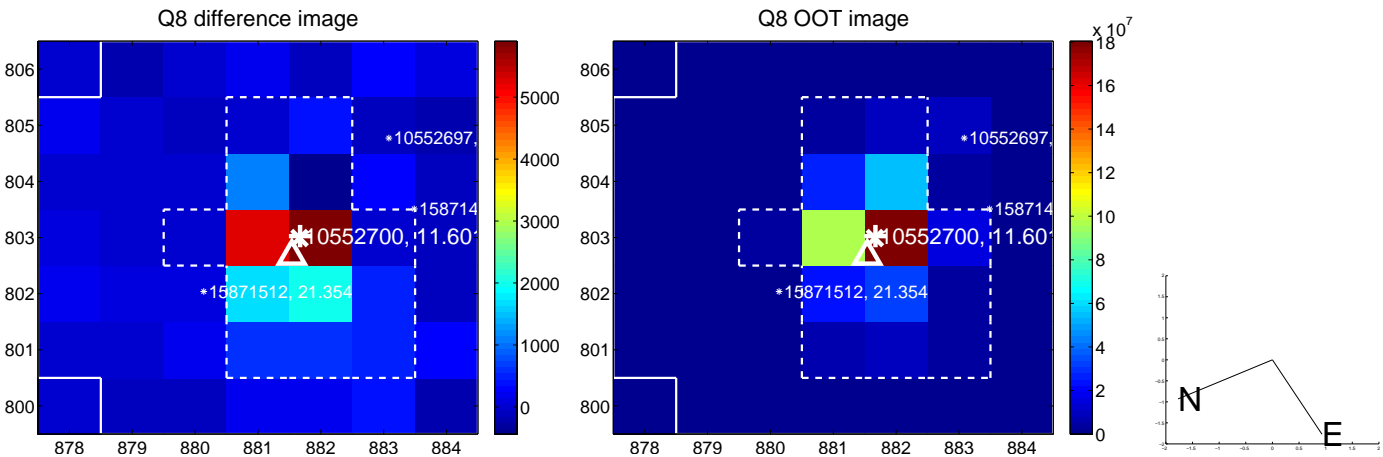
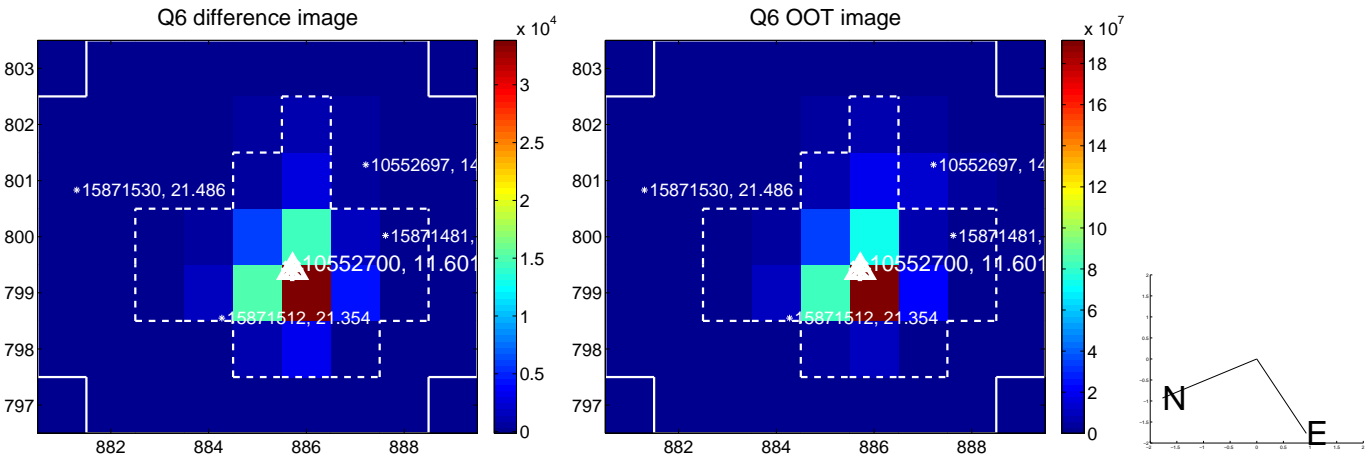
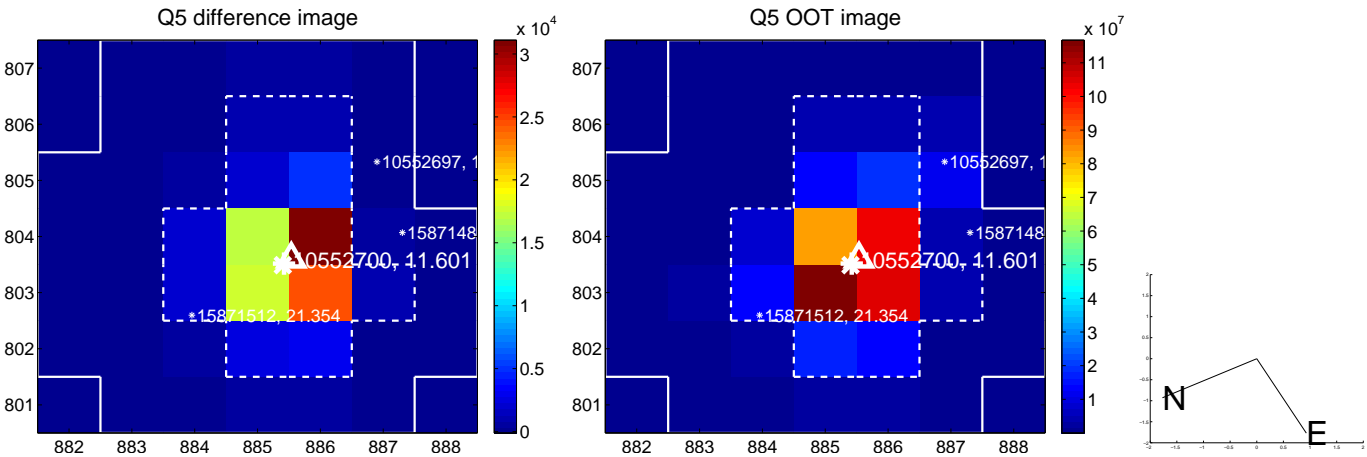


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

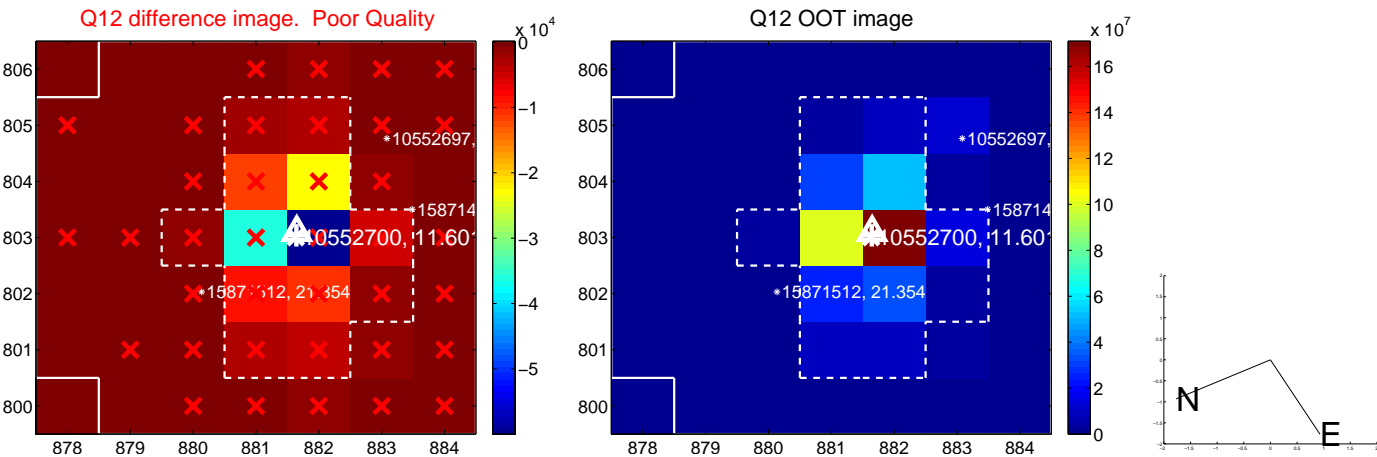
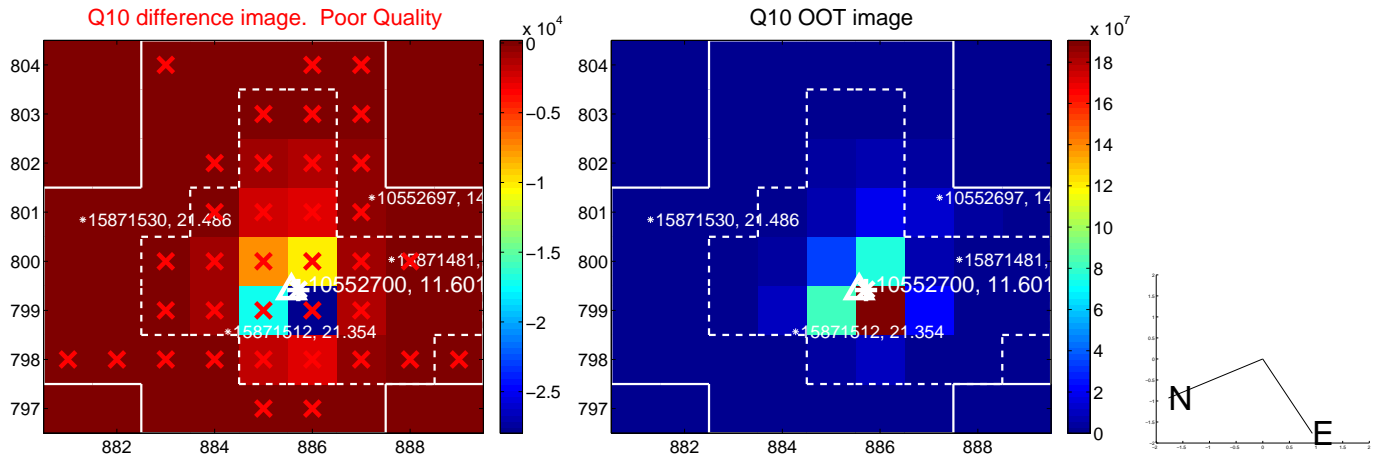
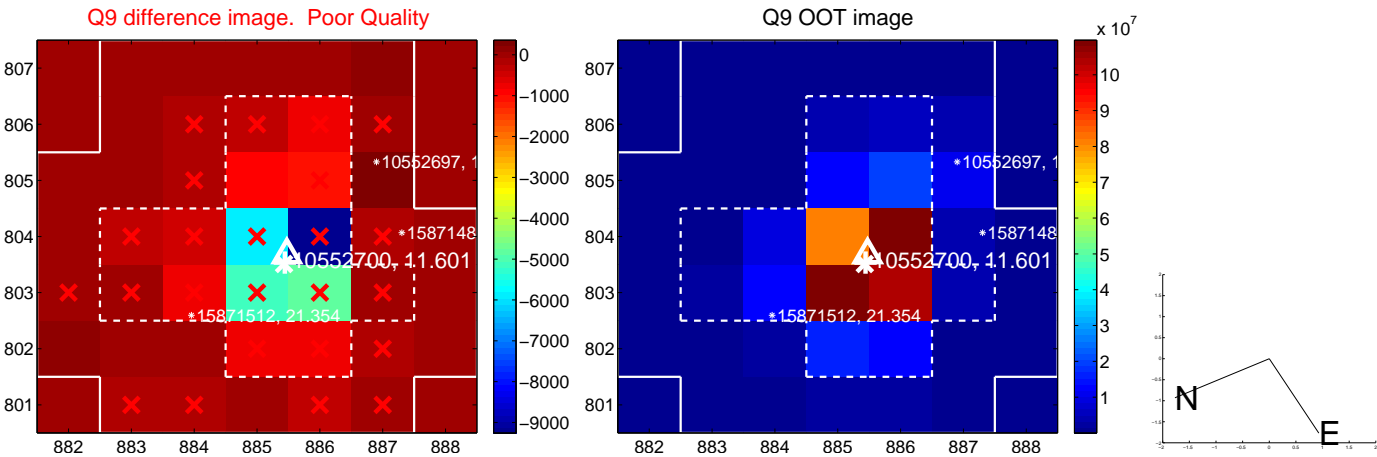
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



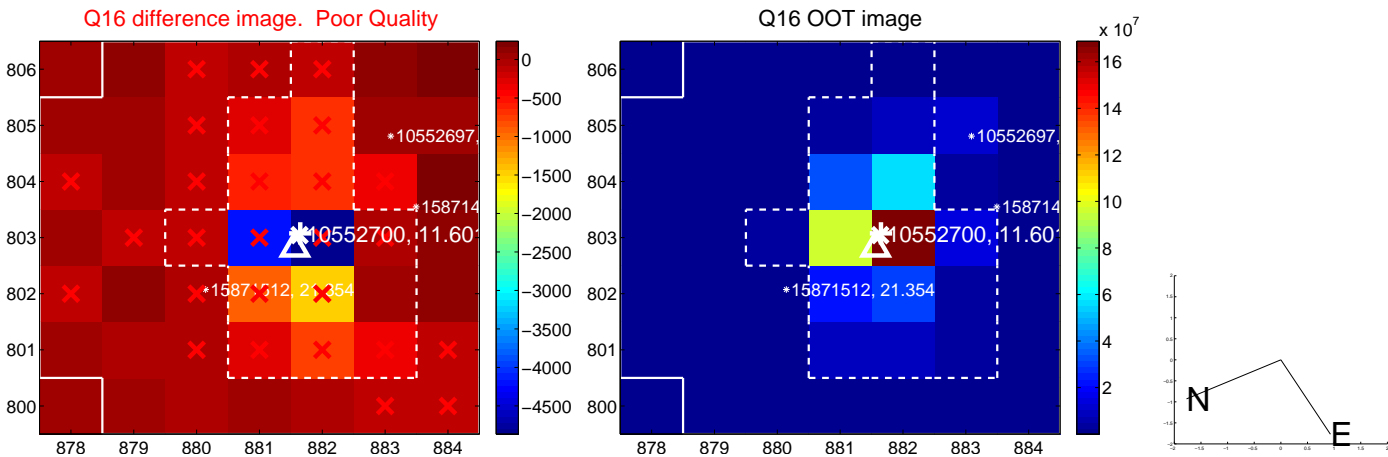
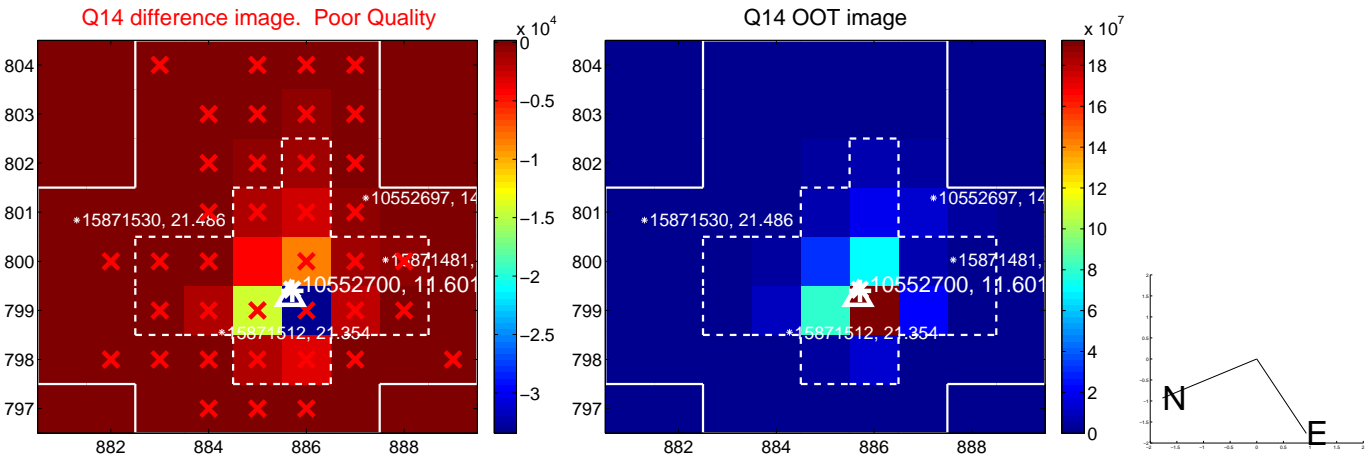
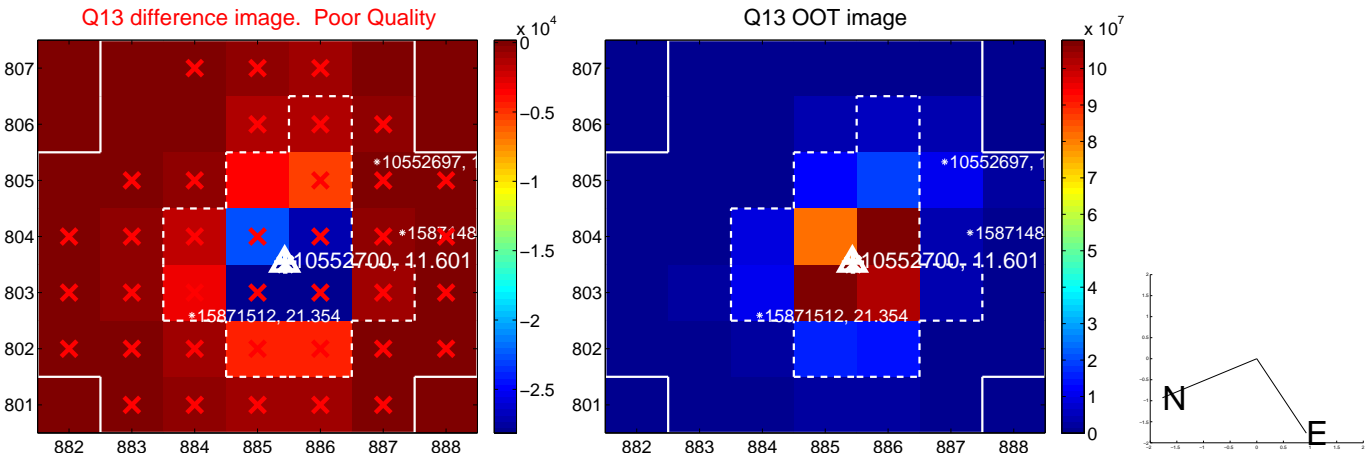
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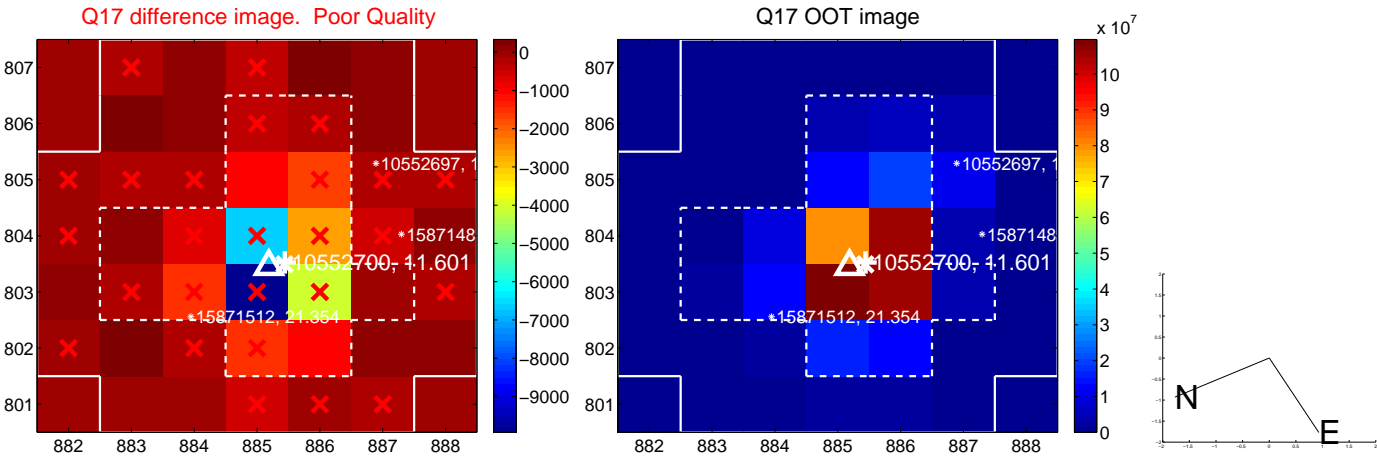
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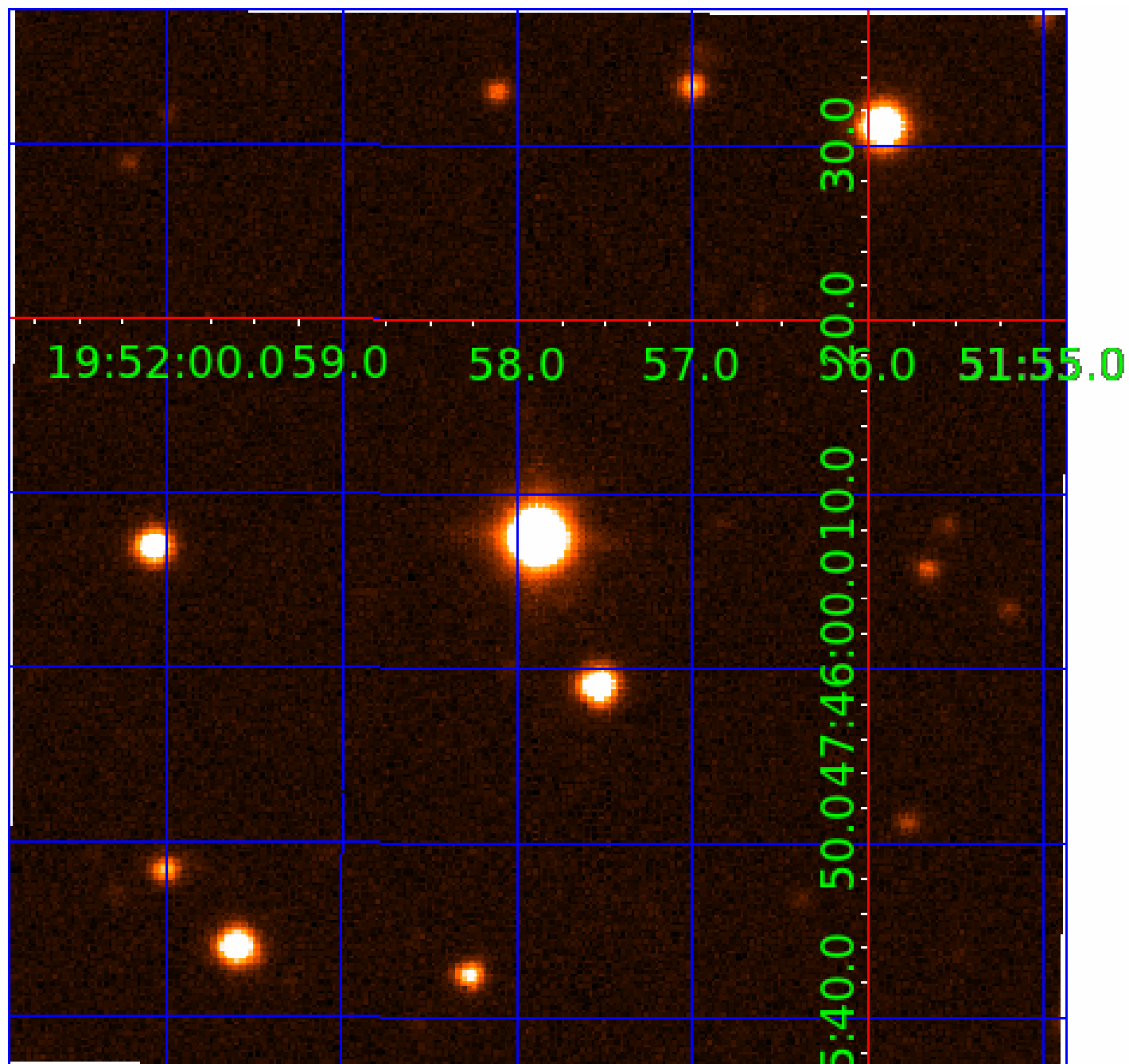
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folded centroid time series figure for this object.

UKIRT Image

Declination



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010552700-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
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See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

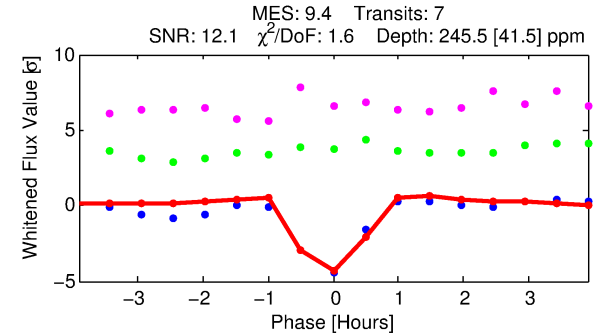
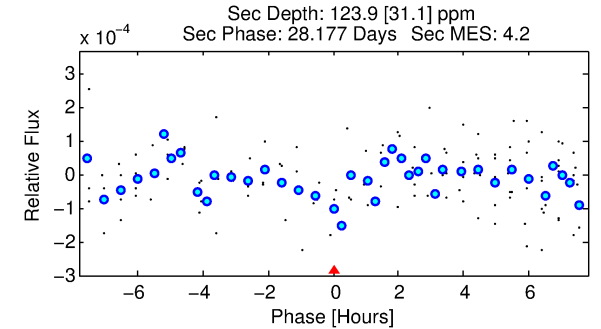
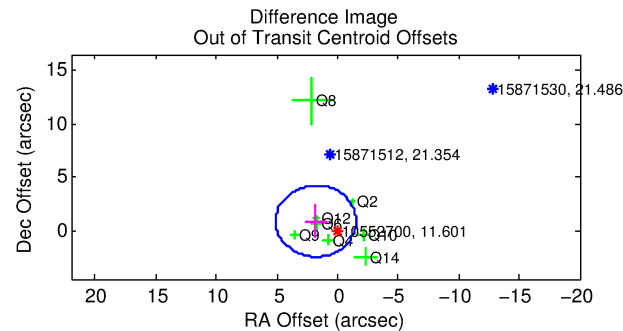
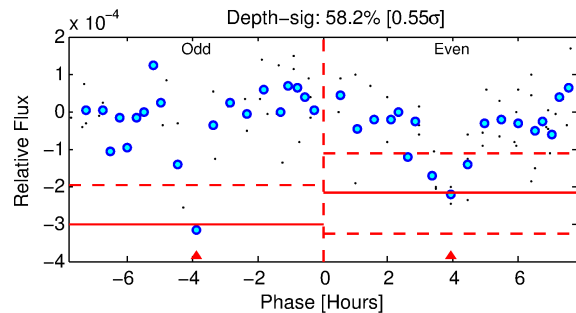
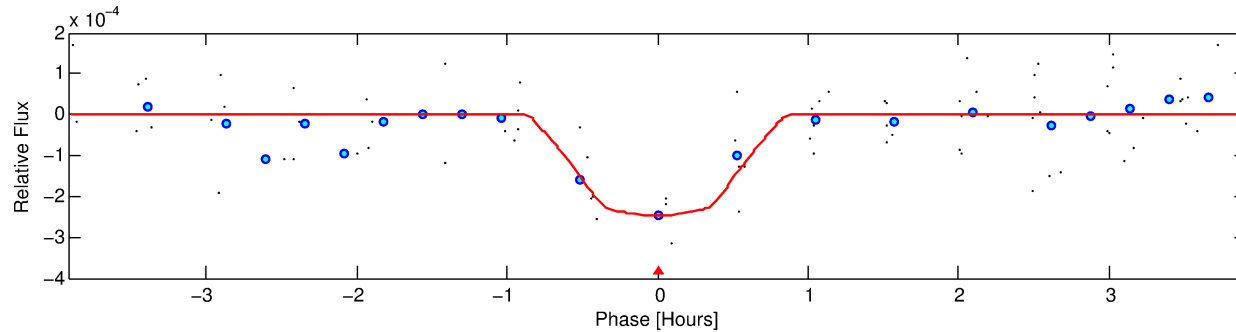
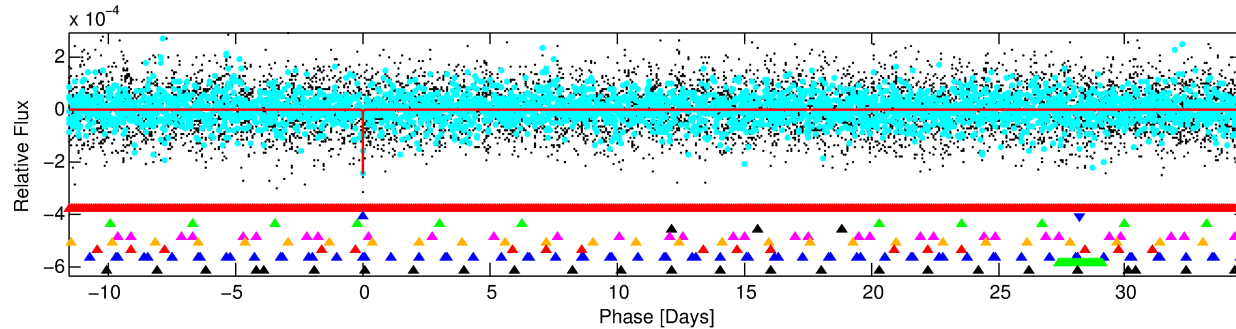
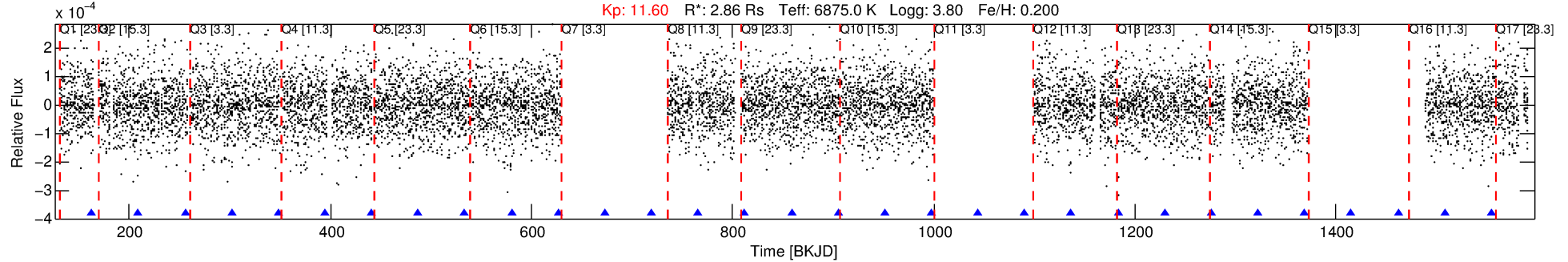
Ephemeris Match Information For 010552700-02

No Significant Match Found

DV One-Page Summary

KIC: 10552700 Candidate: 2 of 10 Period: 46.383 d
KOI: K07342 Corr: No Ephemeris Match

Kp: 11.60 R*: 2.86 Rs Teff: 6875.0 K Logg: 3.80 Fe/H: 0.200



DV Fit Results:

Period = 46.38297 [0.00023] d
Epoch = 162.8592 [0.0031] BKJD
Rp/R* = 0.0163 [0.0144]
a/R* = 150.18 [770.75]
b = 0.85 [1.66]
Seff = 168.53 [79.58]
Teq = 919 [108] K
Rp = 5.08 [4.79] Re
a = 0.3112 [0.0919] AU
Ag = 256.33 [472.83] [0.54σ]
Teffp = 5684 [2548] K [1.87σ]

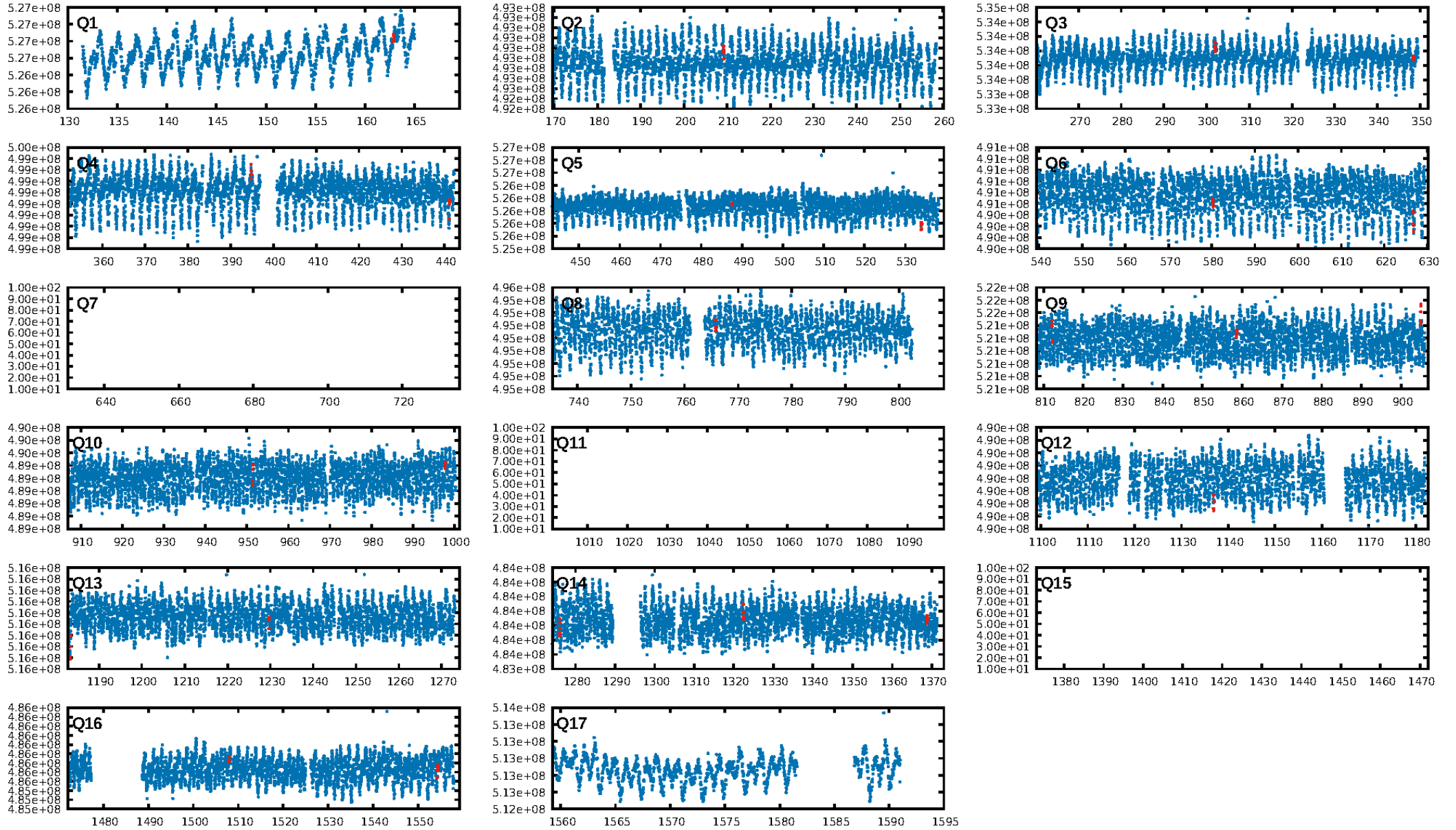
DV Diagnostic Results:

ShortPeriod-sig: 48.6% [0.65σ]
LongPeriod-sig: 100.0% [22.97σ]
ModelChiSquare2-sig: 17.1%
ModelChiSquareGof-sig: 97.4%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: -0.737
Centroid-sig: 2.4%
Centroid-so: 0.453 arcsec [0.85σ]
OotOffset-rm: 2.015 arcsec [1.82σ]
KicOffset-rm: 1.956 arcsec [1.86σ]
OotOffset-st: 4/0/3/1 [8]
KicOffset-st: 4/0/3/1 [8]
DiffImageQuality-fgm: 0.25 [2/8]
DiffImageOverlap-fno: 0.38 [5/13]

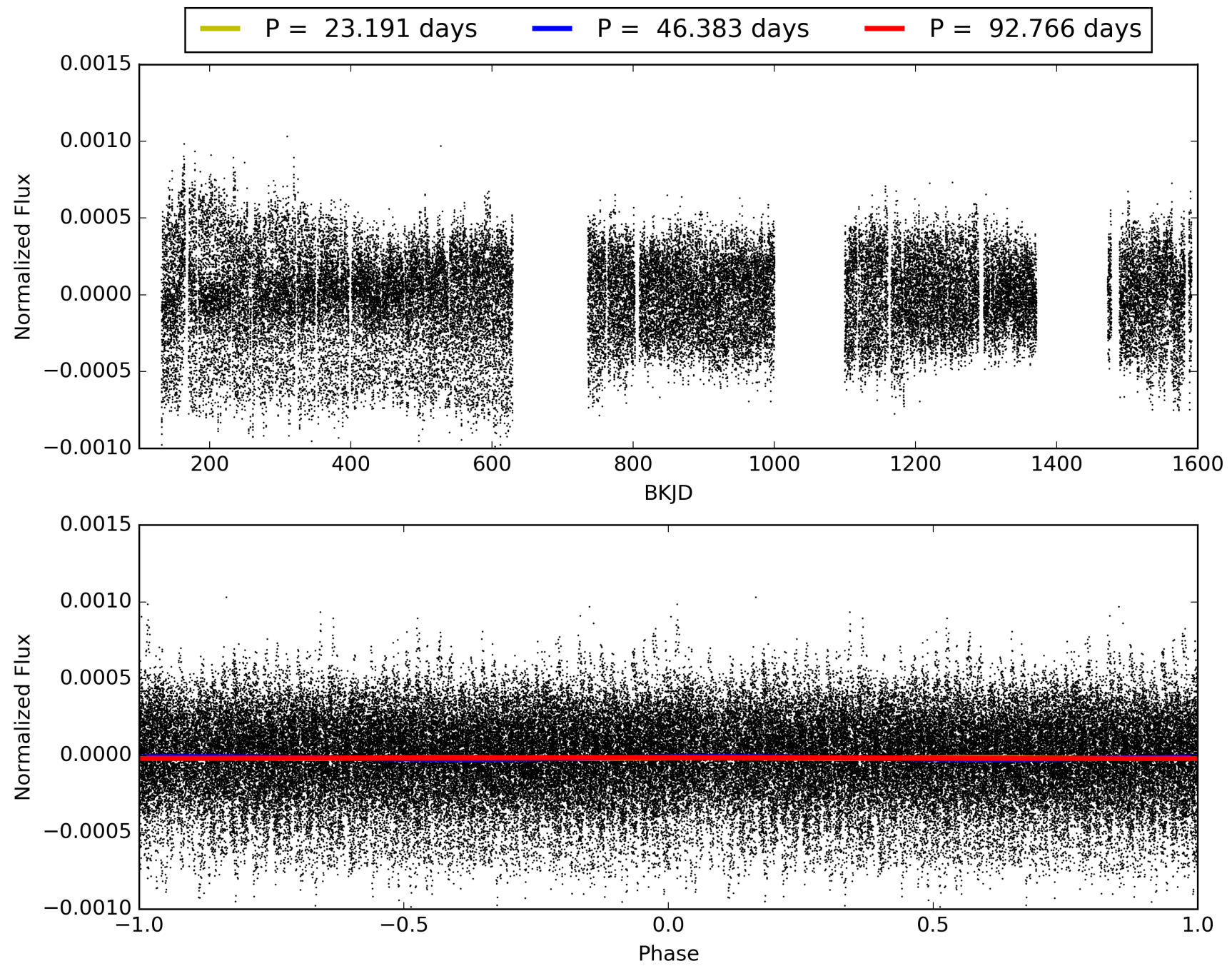
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:50:56 Z

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

TCE 010552700-02, PDC Light Curves

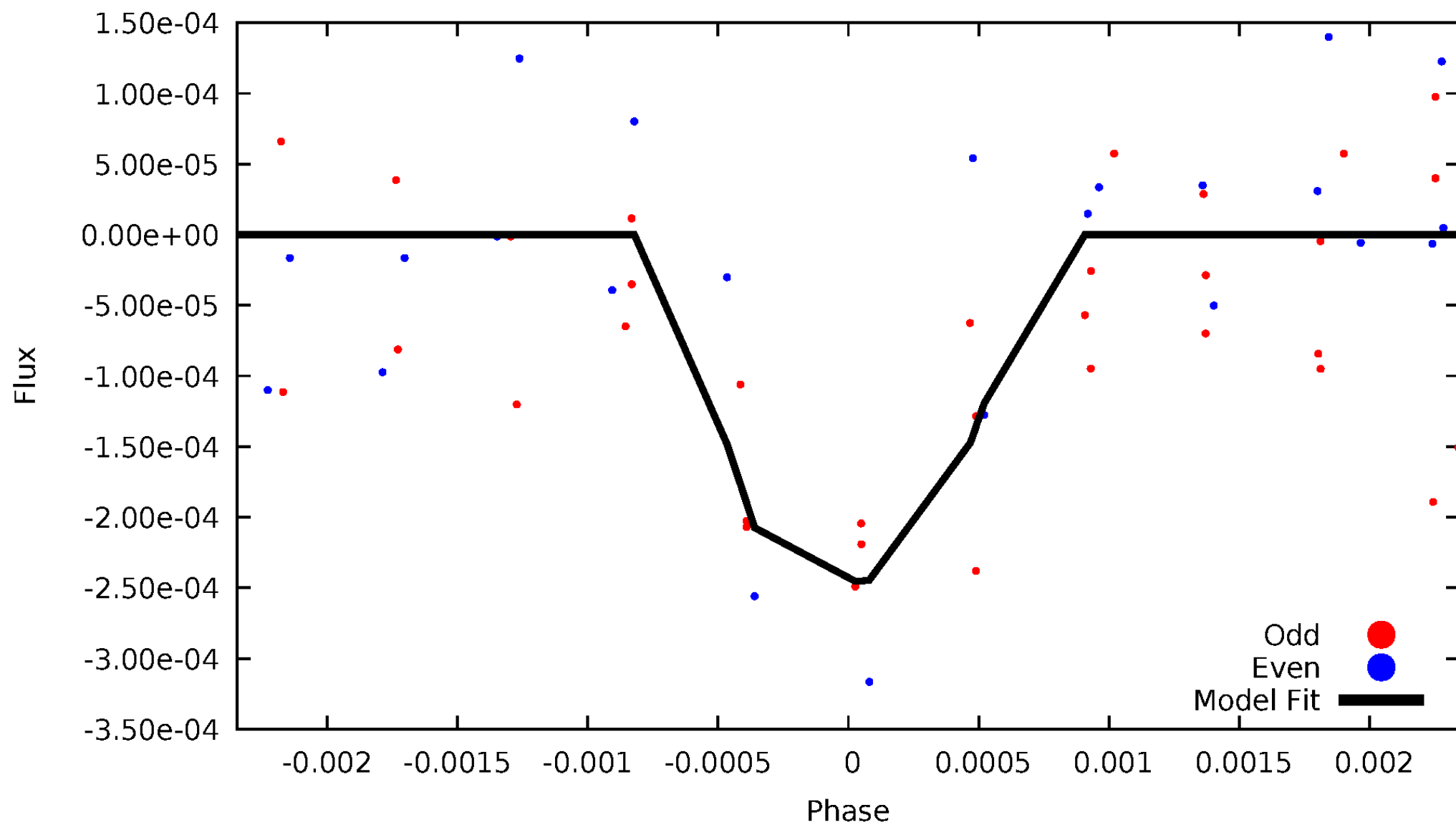


TCE 010552700-02



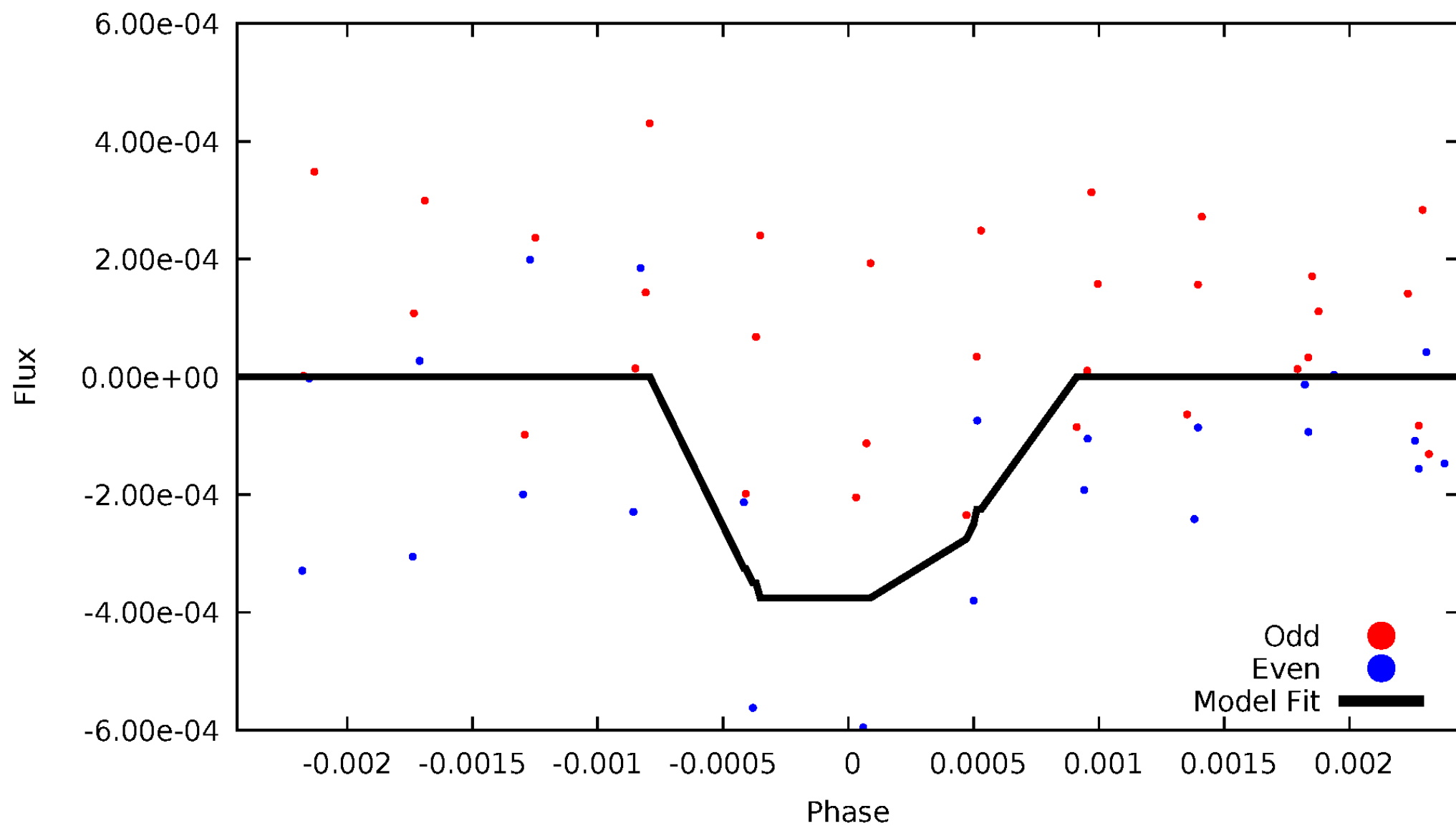
DV Odd/Even

TCE 010552700-02



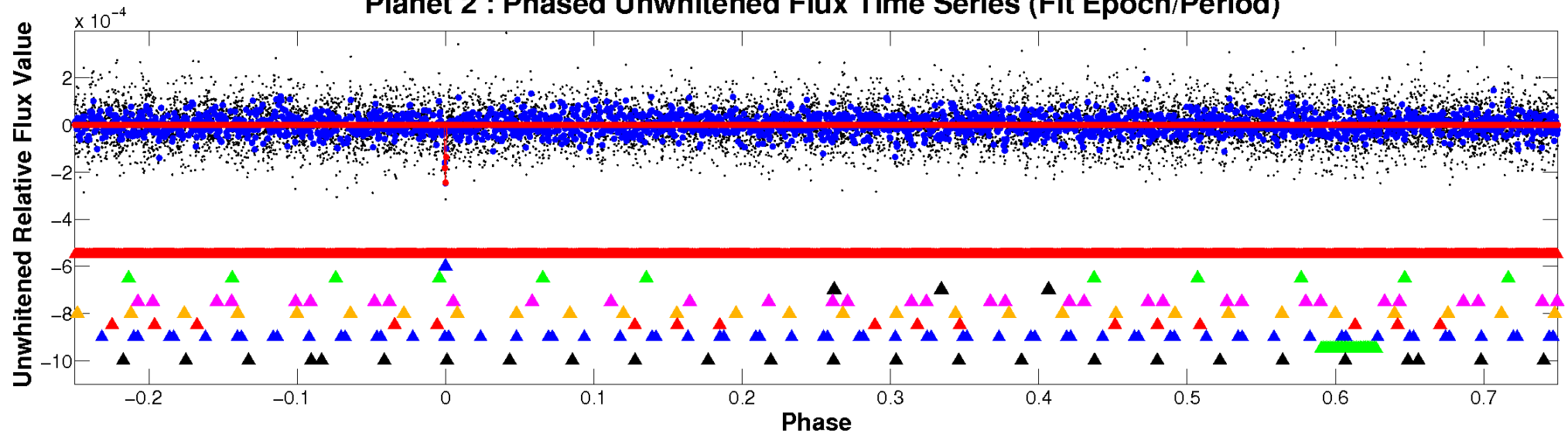
ALT Odd/Even

TCE 010552700-02

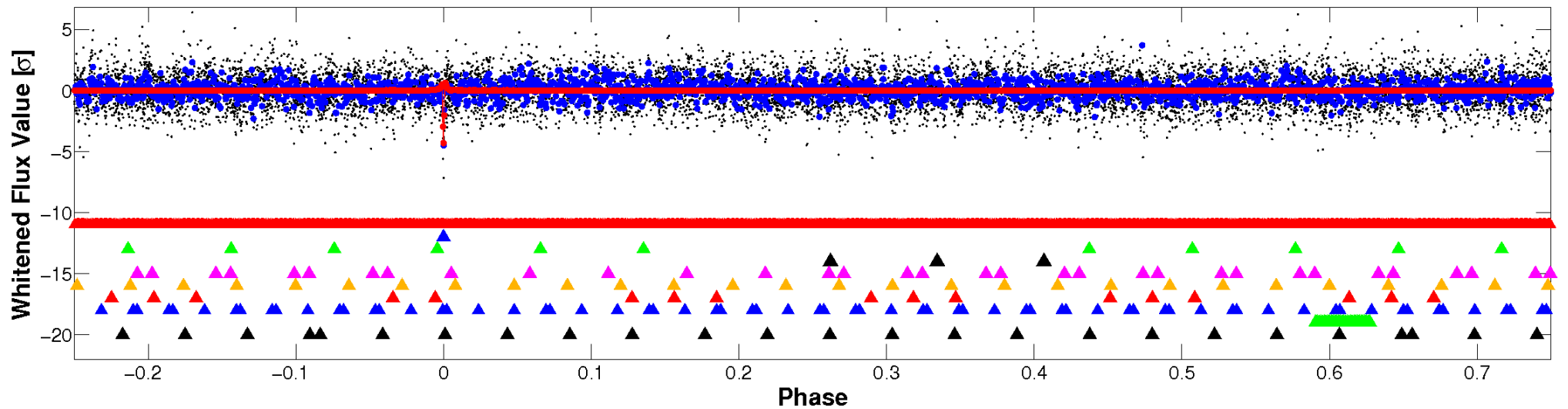


Non-Whitened Vs. Whitened Light Curve

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

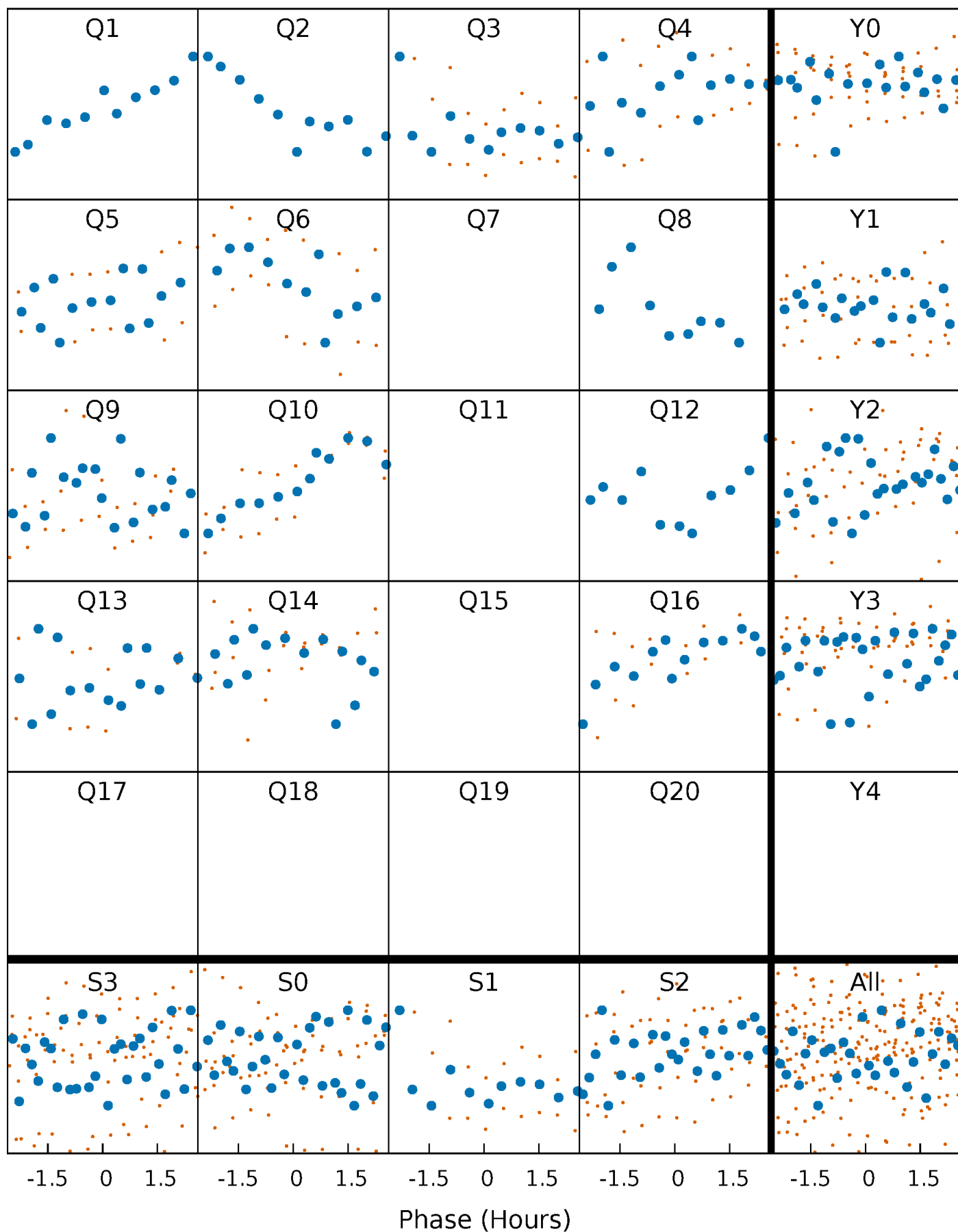


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



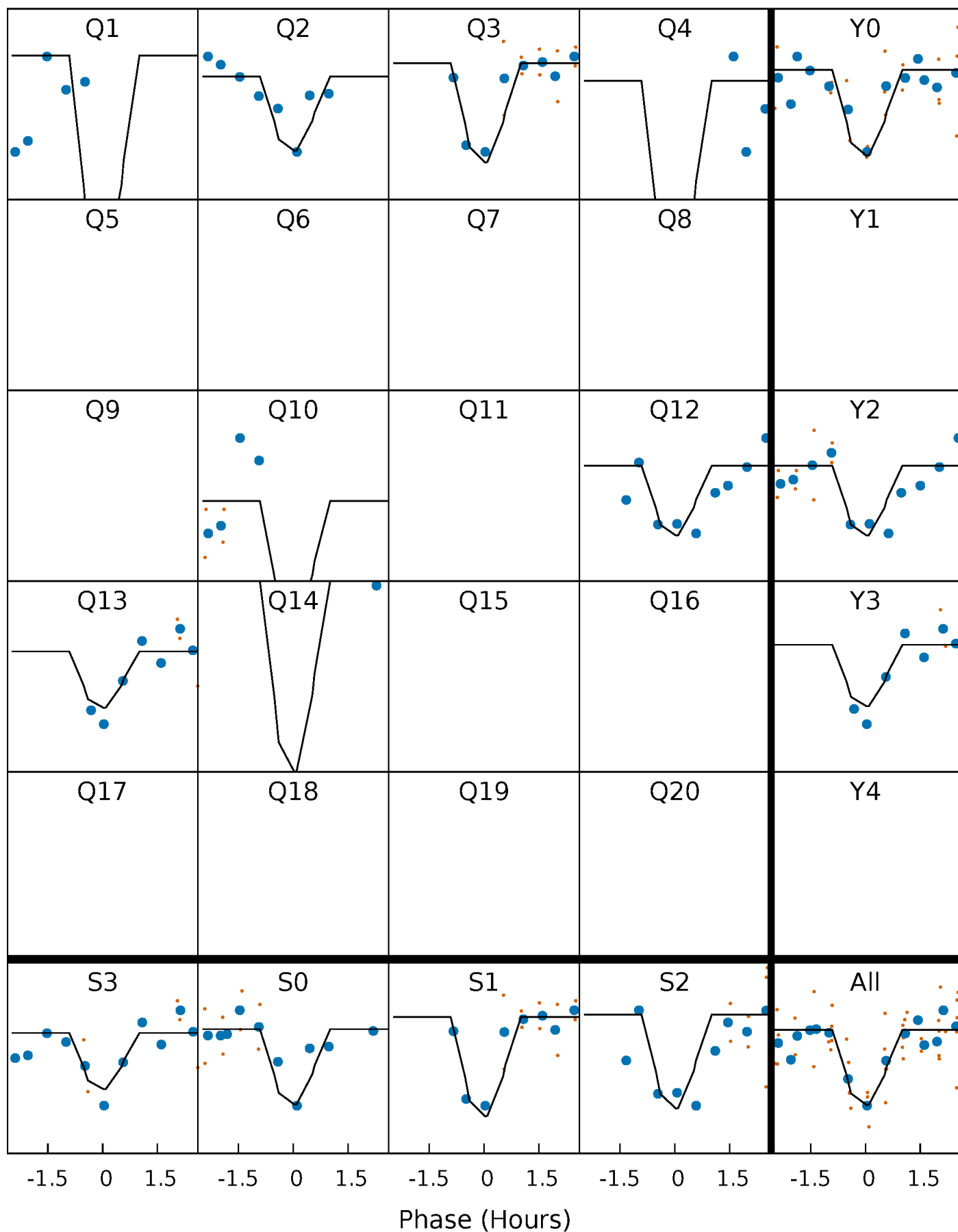
PDC Quarter-Phased Transit Curves

TCE 010552700-02 $P = 46.382972$ Days $T_0 = 162.859199$ (BKJD)



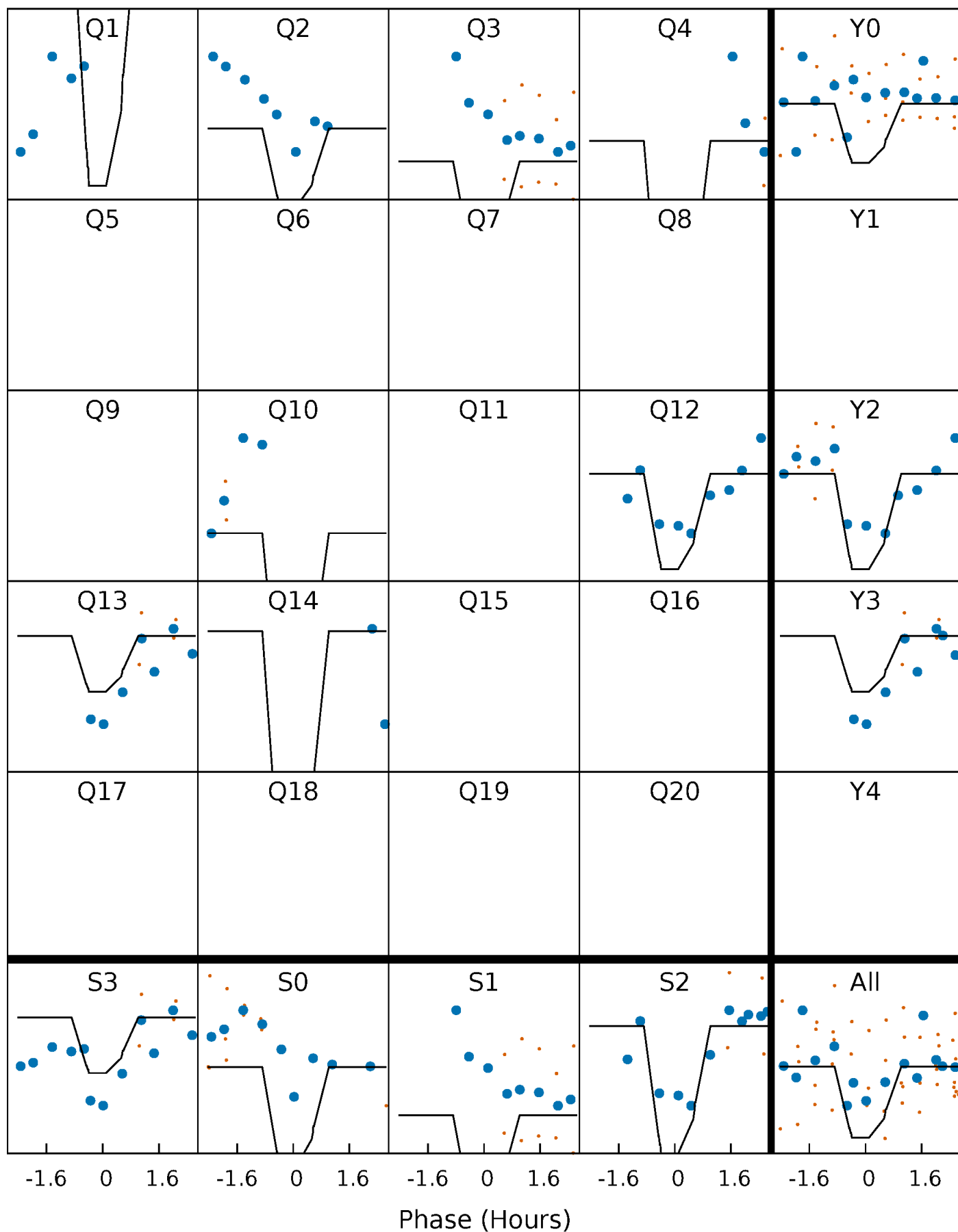
DV Quarter-Phased Transit Curves

TCE 010552700-02 $P = 46.382972$ Days $T_0 = 162.859199$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

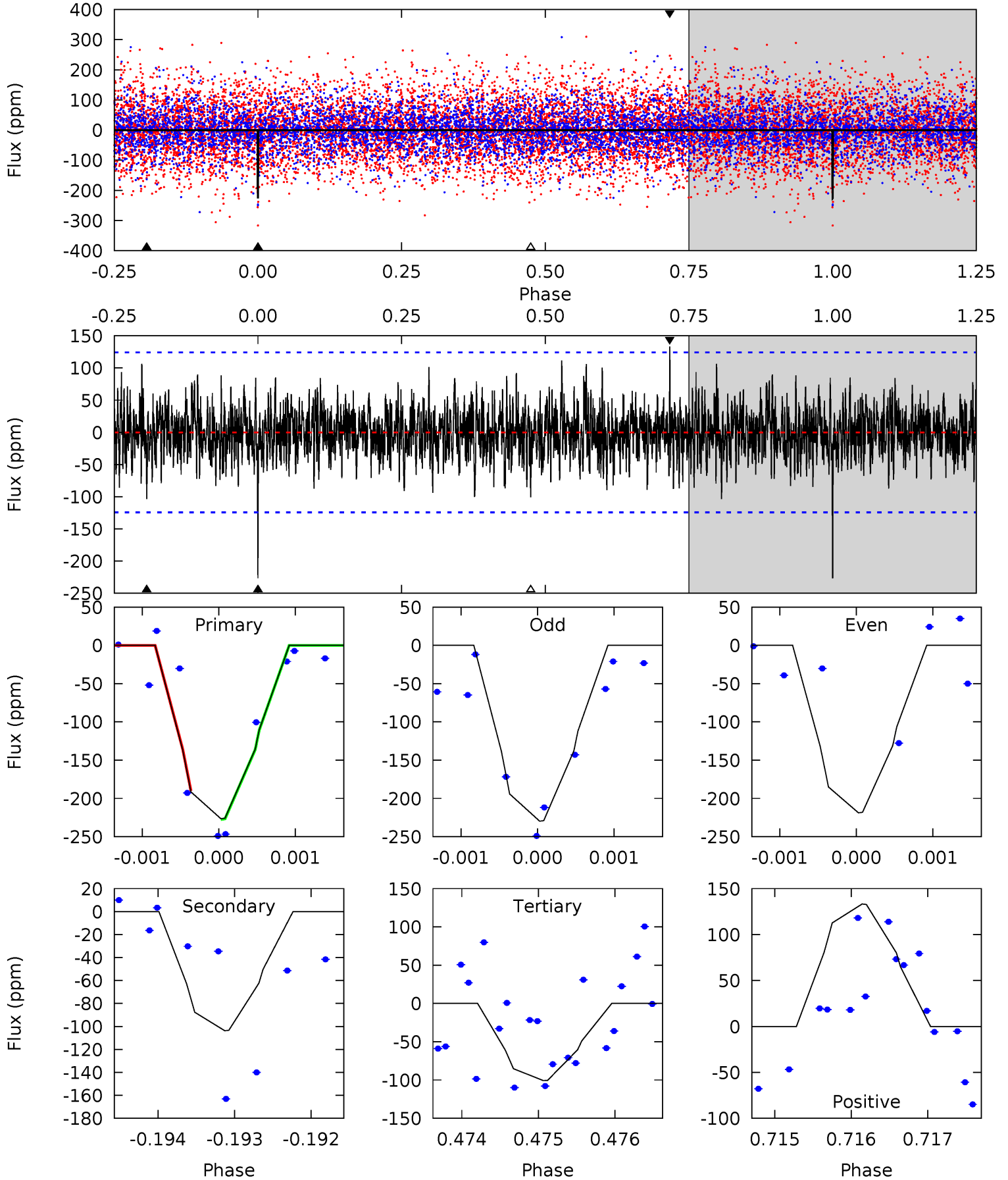
TCE 010552700-02 P= 46.383119 Days $T_0=162.856941$ (BKJD)



DV Model-Shift Uniqueness Test

010552700-02, P = 46.382972 Days, E = 116.476227 Days

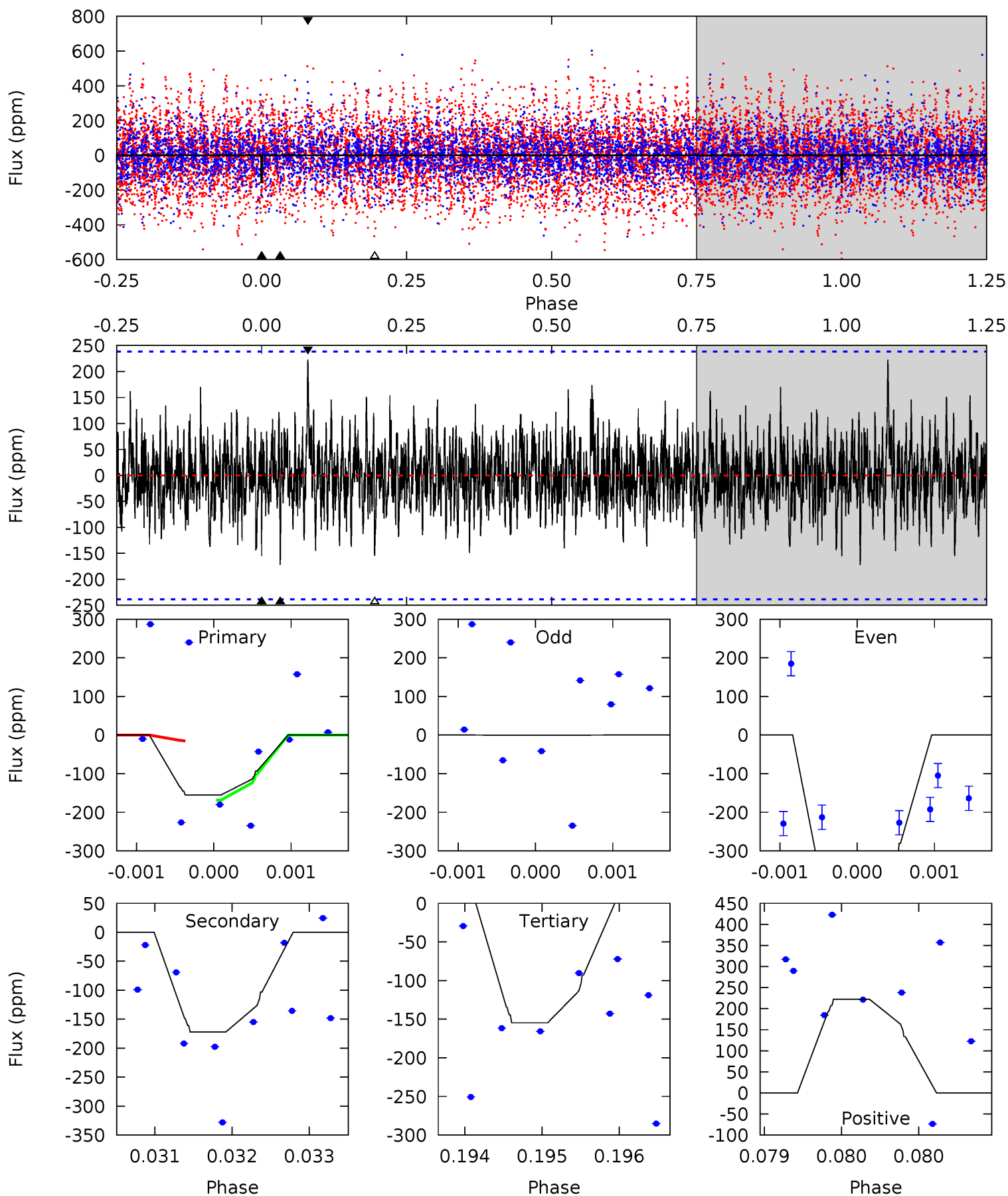
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.94	4.55	4.42	5.85	5.45	3.29	1.39	5.52	4.09	0.13	-1.30	0.21	1.00	0.37	0.77



Alt Model-Shift Uniqueness Test

010552700-02, P = 46.383119 Days, E = 116.473822 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.55	3.94	3.54	5.10	5.46	3.31	1.09	0.01	-1.55	0.39	-1.16	5.02	1.19	0.56	1.48



Stellar Parameters For KIC 010552700

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6875^{+164}_{-226}	$3.798^{+0.259}_{-0.111}$	$0.200^{+0.200}_{-0.300}$	$2.856^{+0.503}_{-0.935}$	$1.868^{+0.180}_{-0.361}$	$0.113^{+0.194}_{-0.039}$
	+2%/-3%	+7%/-3%	+100%/-150%	+18%/-33%	+10%/-19%	+172%/-35%
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 010552700-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-104 ± 23	$5.10^{+4.27}_{-3.10}$	1267^{+73}_{-106}	5190^{+3396}_{-1052}	203^{+1140}_{-143}
Alt.	-172 ± 44	$5.87^{+4.25}_{-3.54}$	1263^{+81}_{-106}	5495^{+4134}_{-1108}	256^{+1555}_{-174}

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 $A_{obs} \gg 1.0$

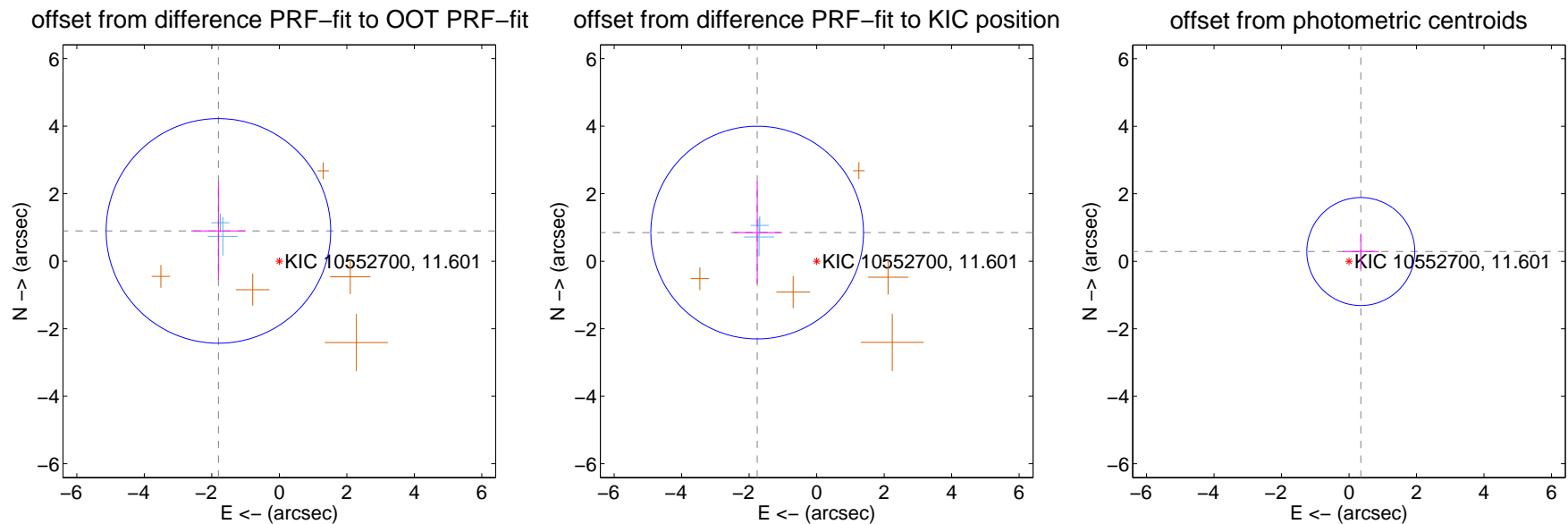
DV Centroid Data

Supplemental centroid analysis for 010552700-02. **Kepler magnitude: 11.60.** Transit SNR 12.09

There are 2 quarters with good PRF difference image offsets

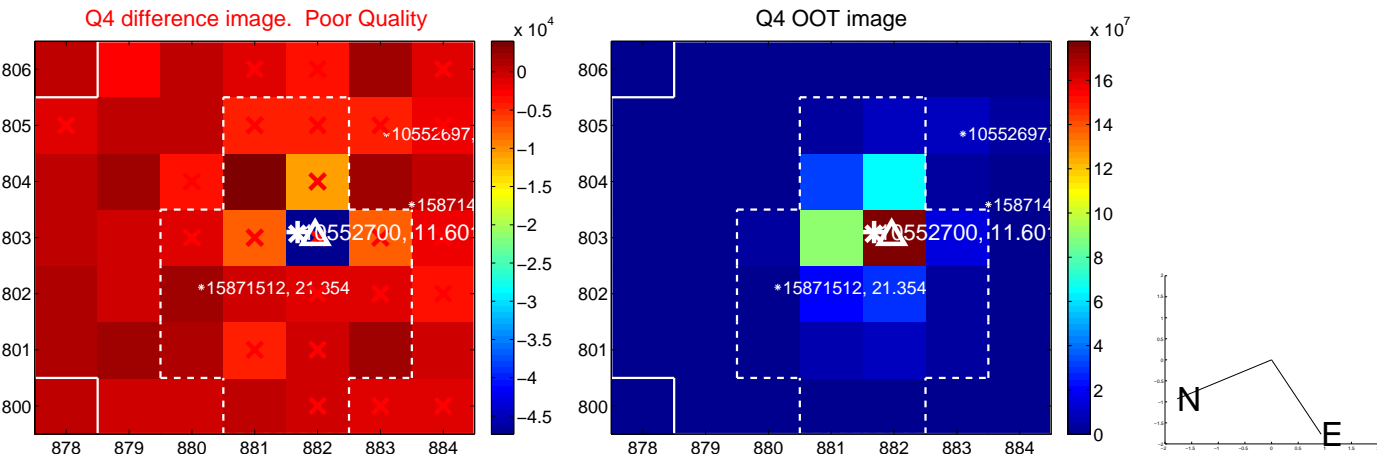
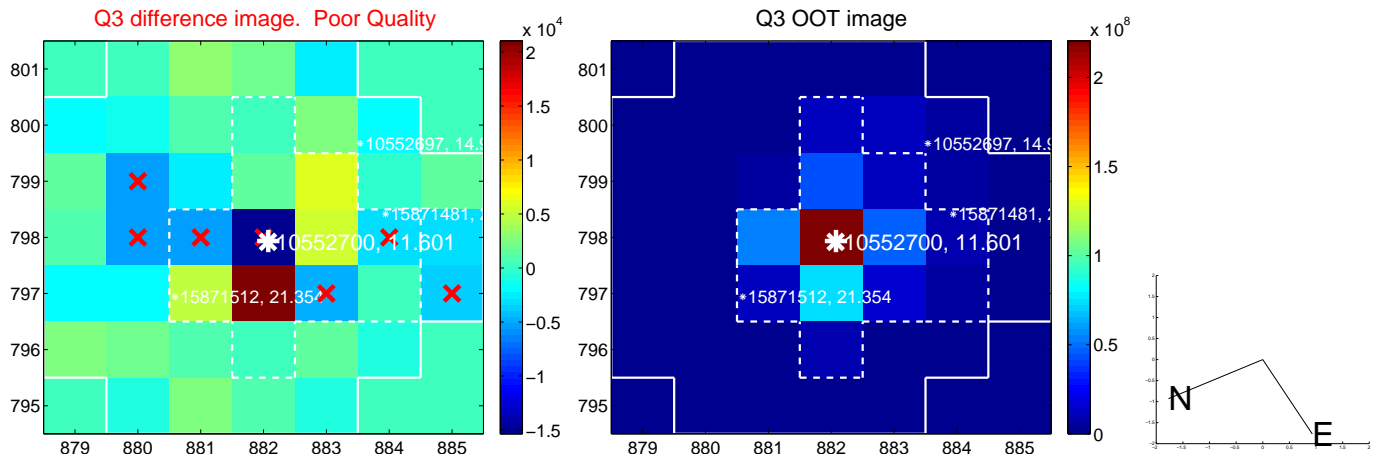
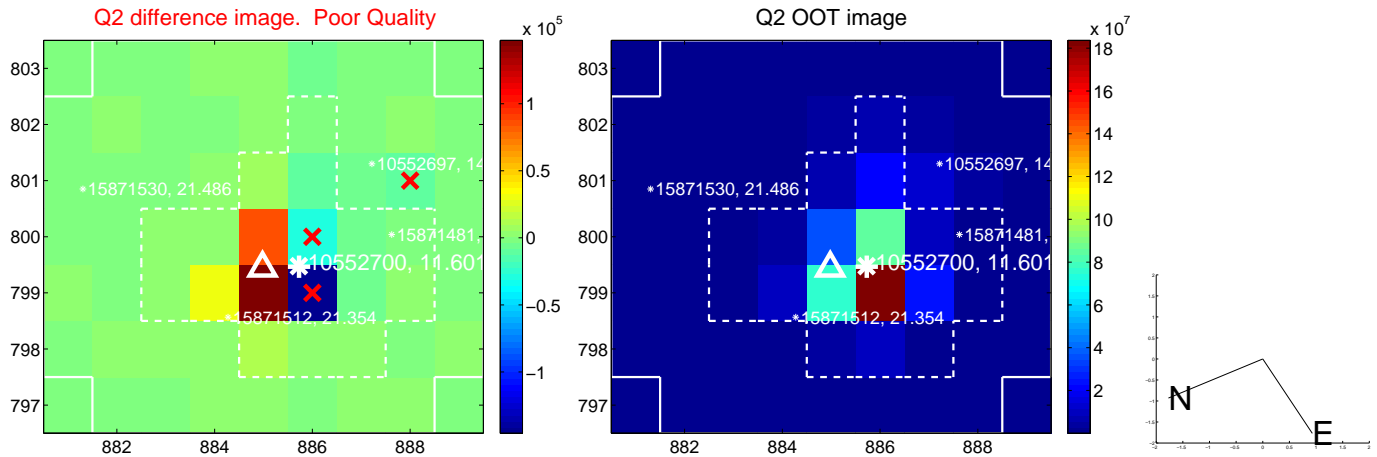
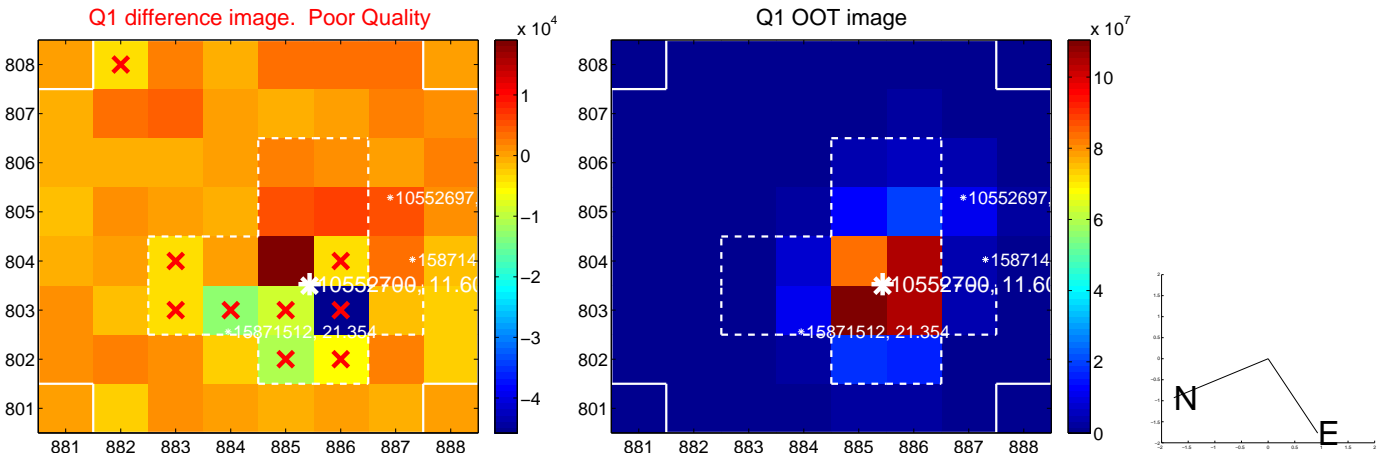
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.015 ± 1.109	1.82	1.804 ± 0.805	0.897 ± 1.443
PRF-fit source offset from KIC position	1.956 ± 1.050	1.86	1.762 ± 0.698	0.848 ± 1.508
photometric centroid source offset	0.45 ± 0.53	0.85	-0.35 ± 0.54	0.29 ± 0.53

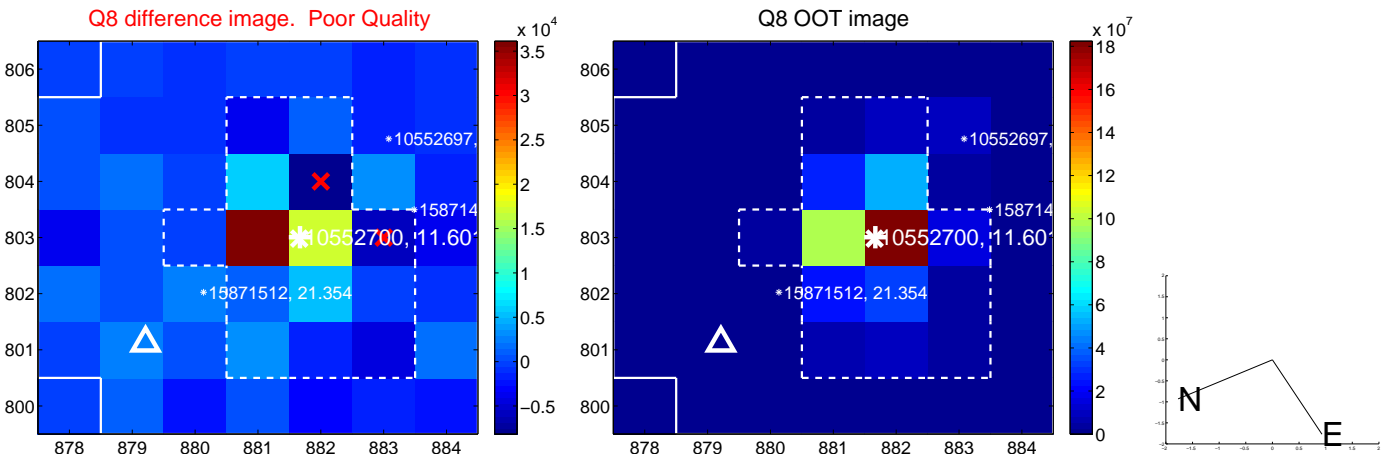
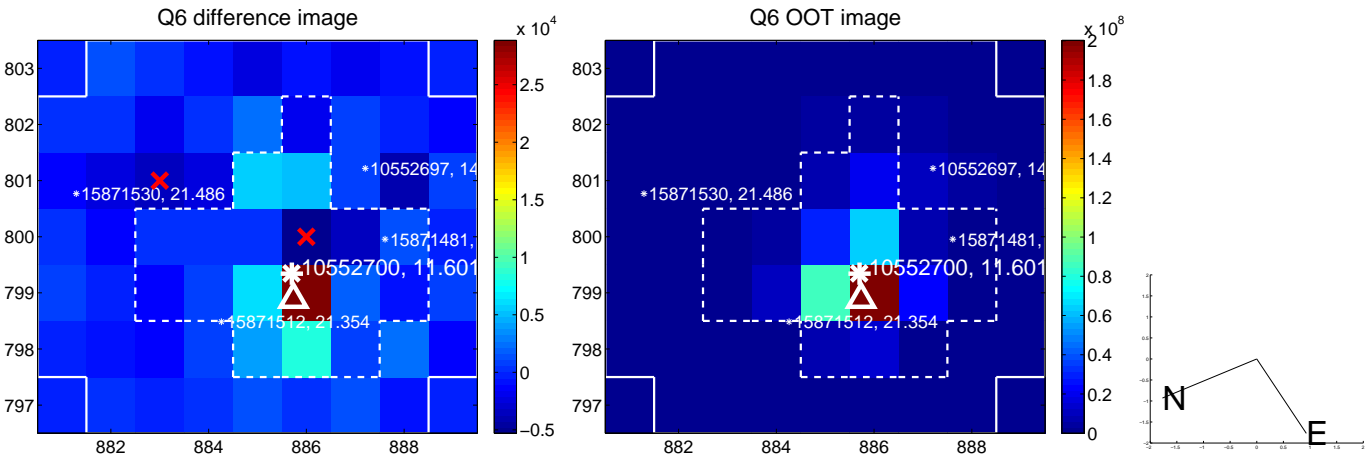
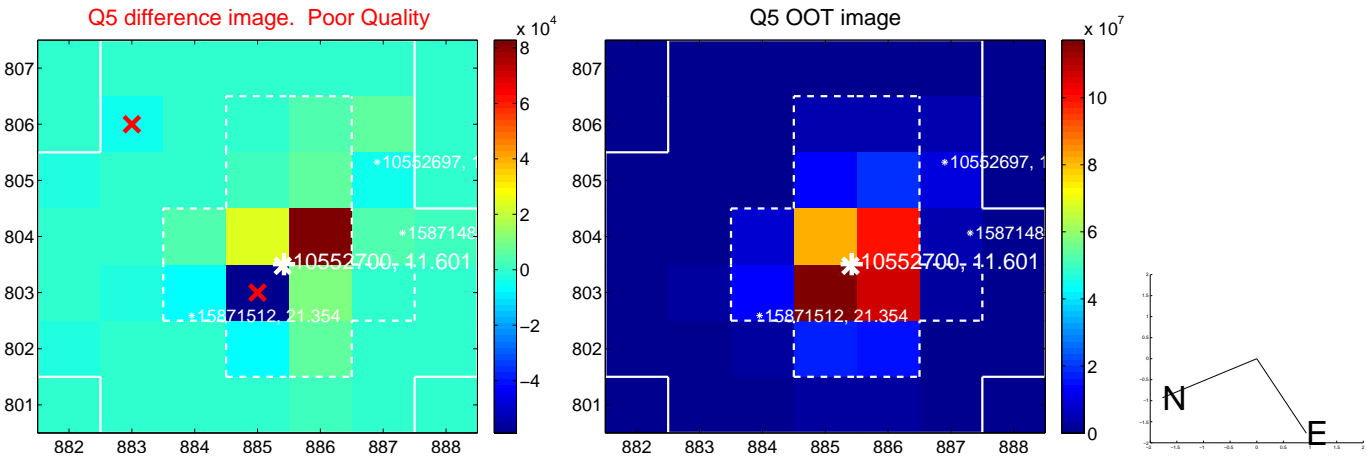


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

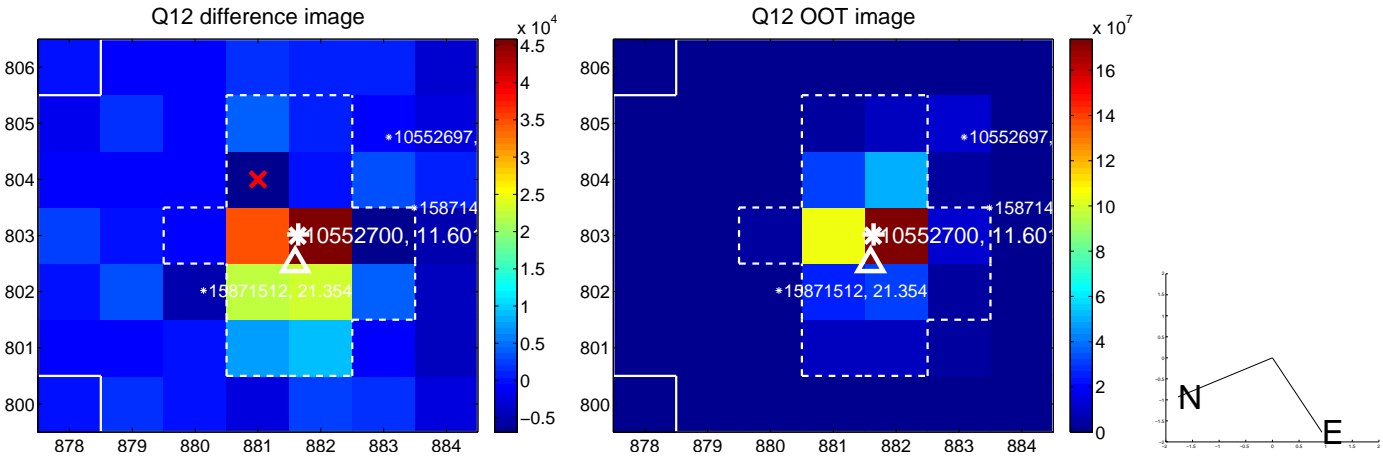
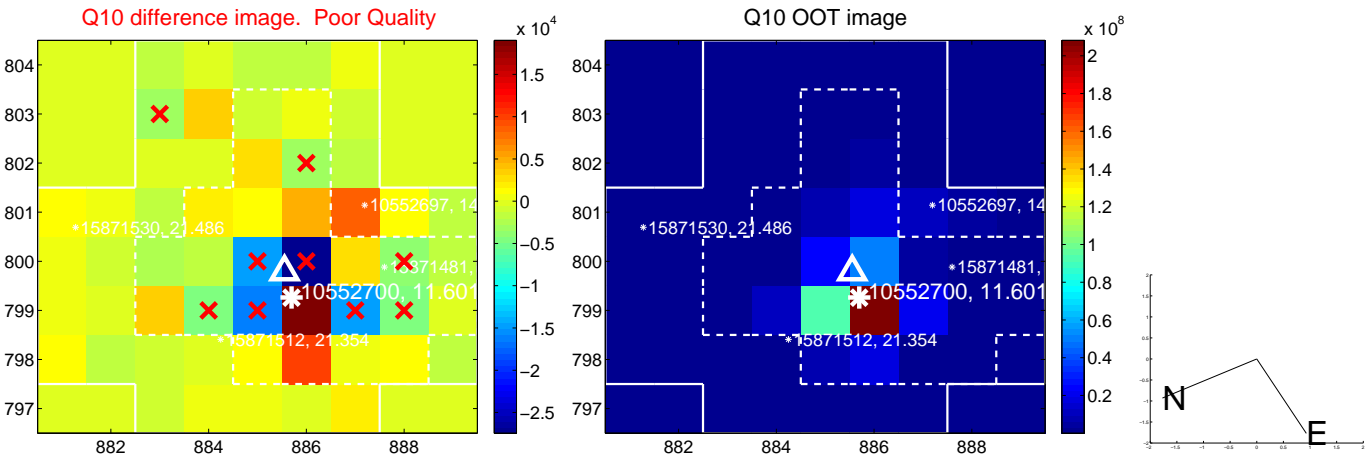
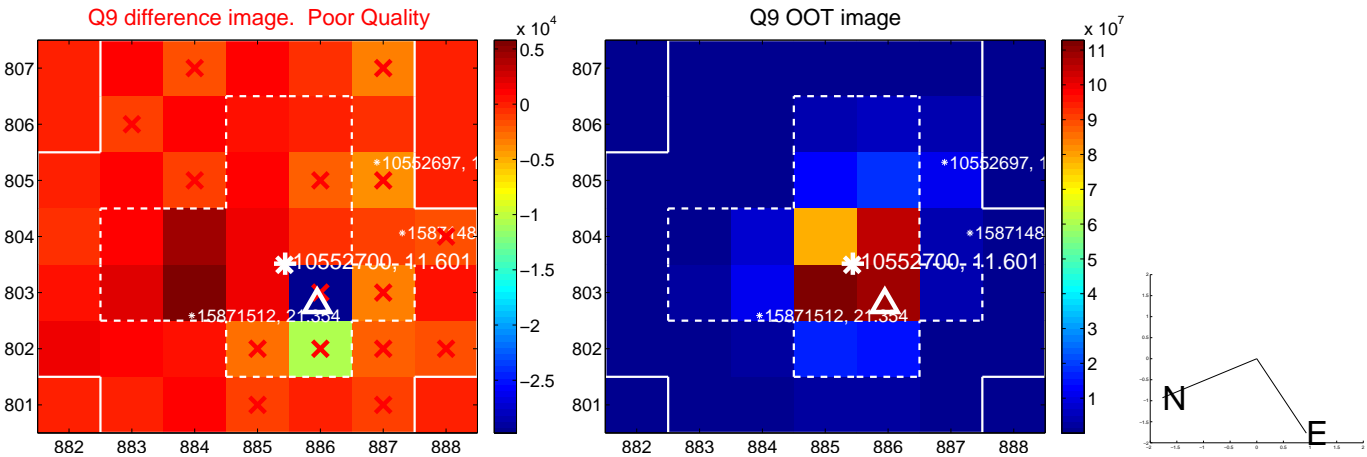
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



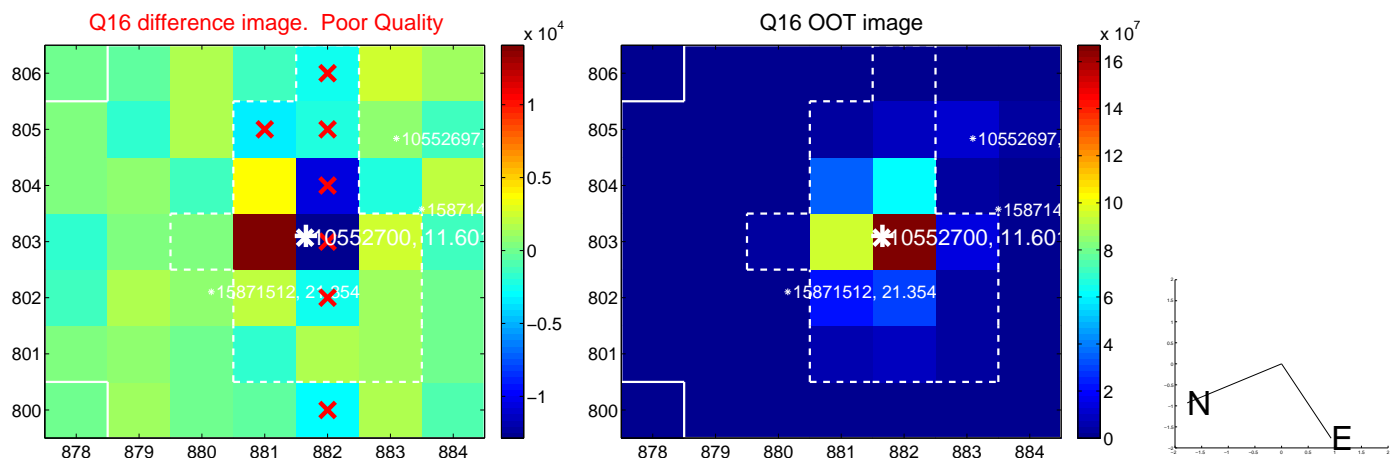
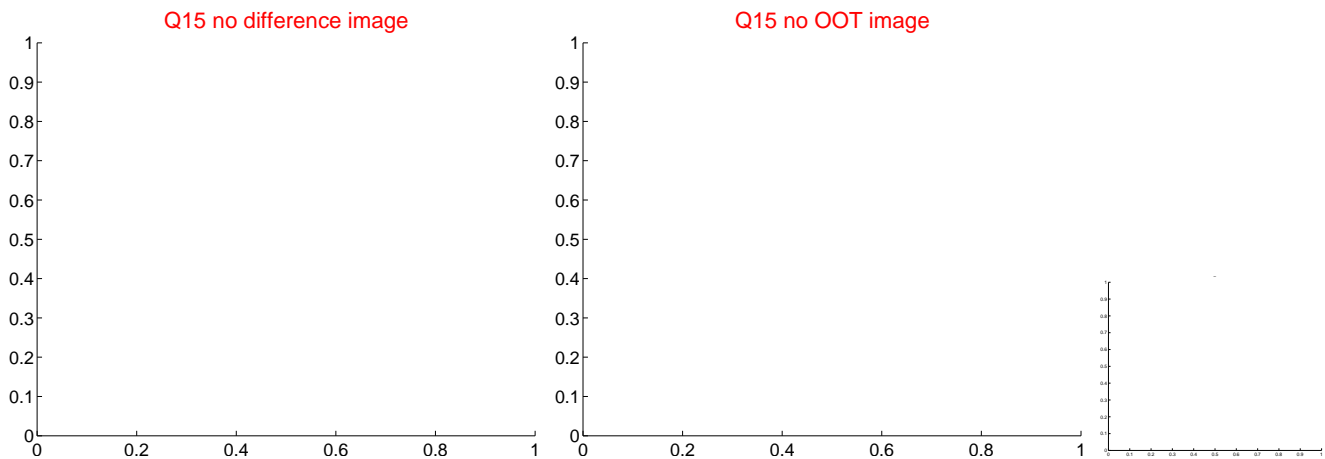
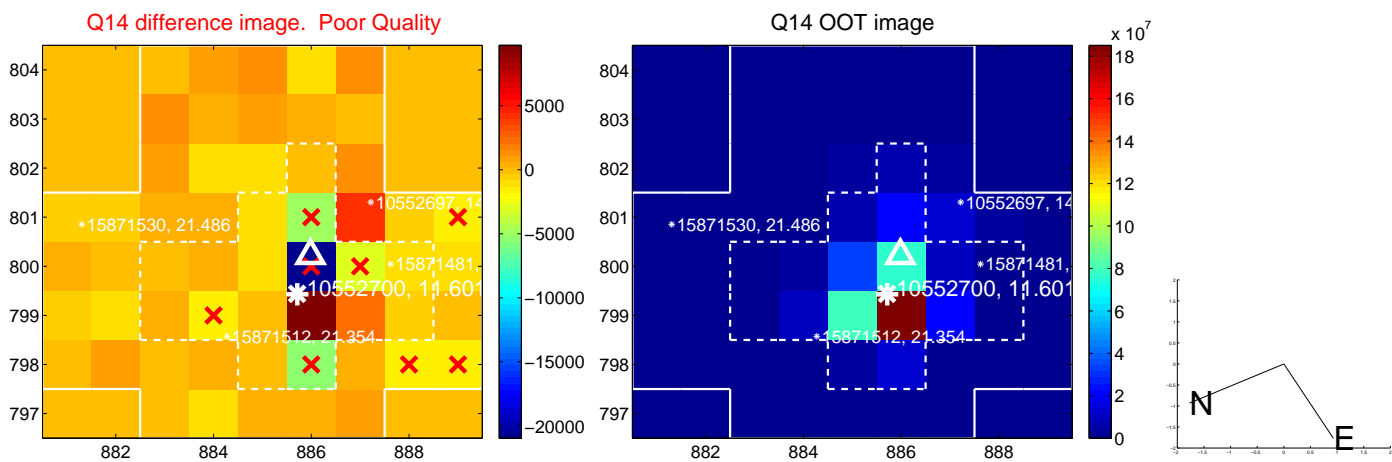
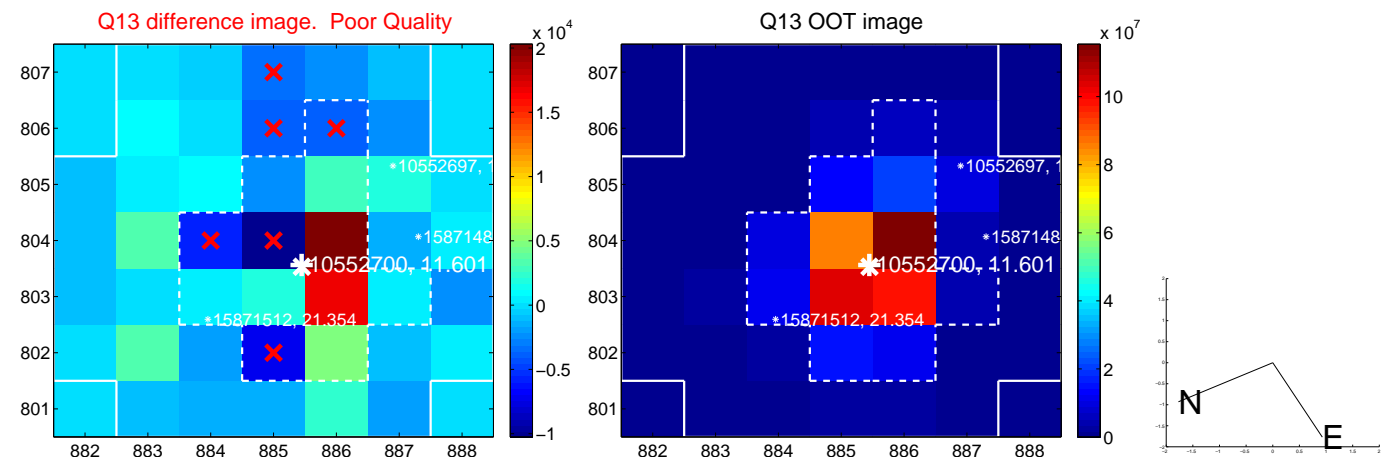
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



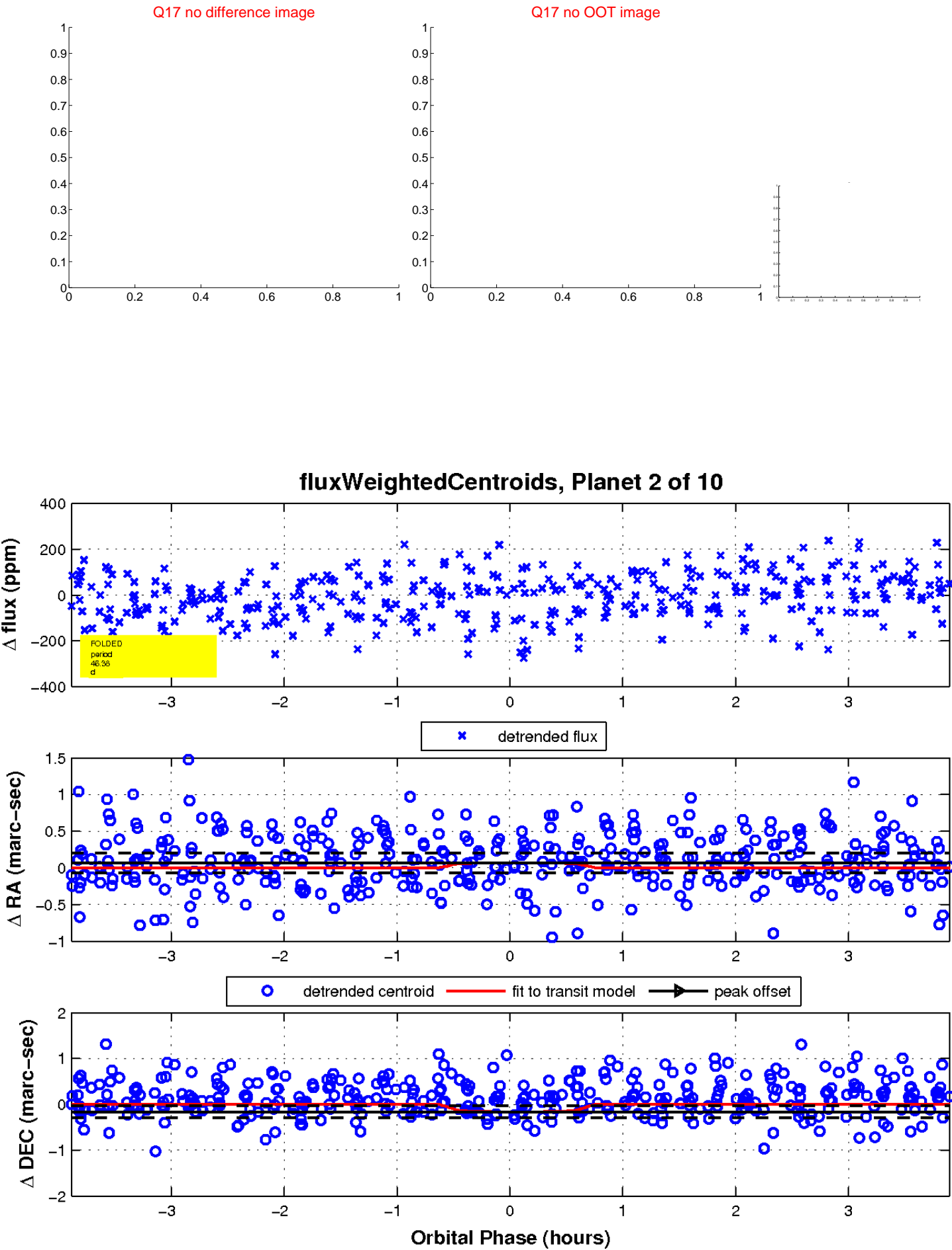
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

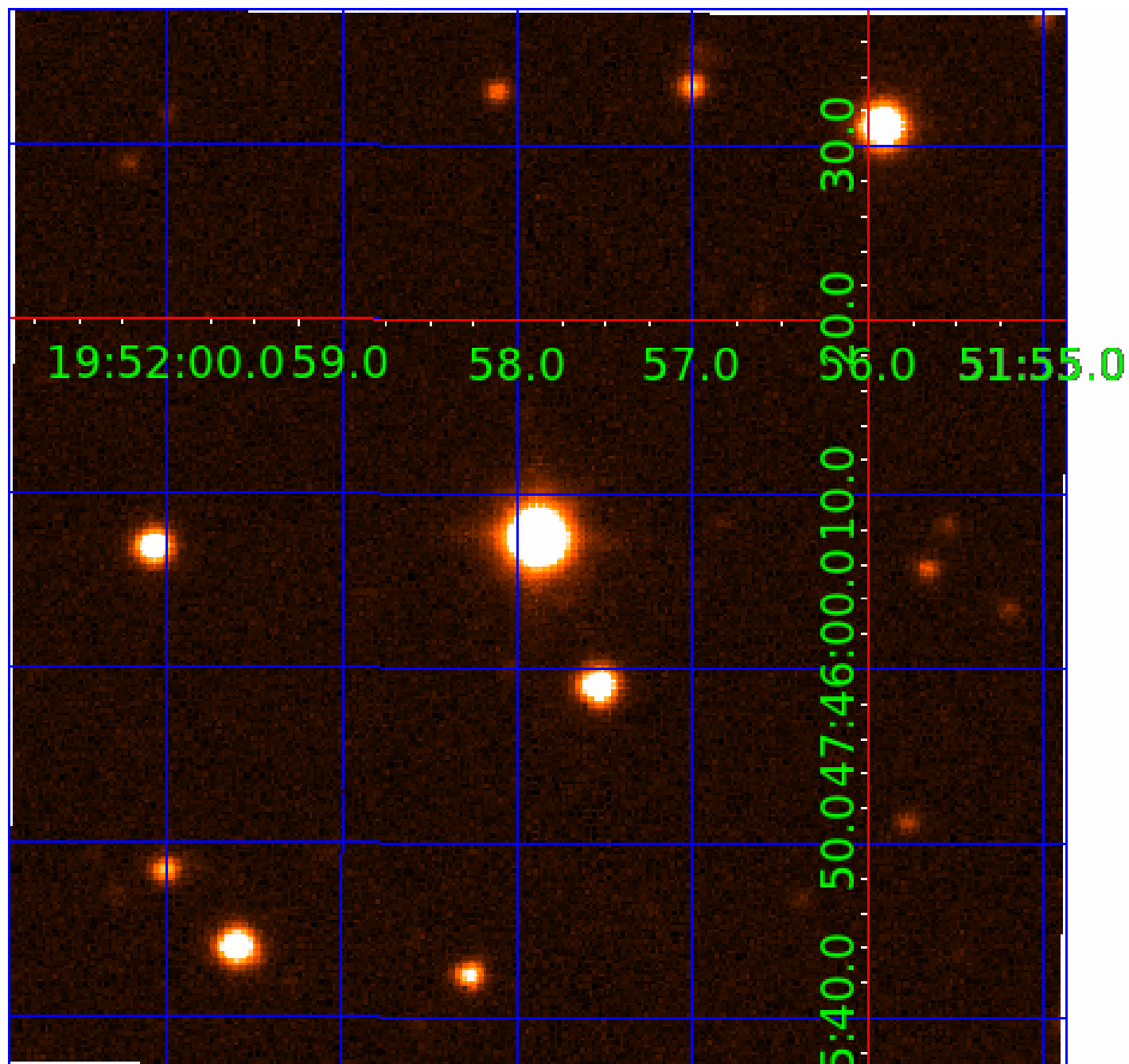


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
010552700-01	OBS	7342.01	0.947637	131.958058	3.9	5.827	10.7	2.8	2.86	6875	0.66	30174.11
010552700-02	OBS	No	46.382972	162.859199	245.5	1.305	9.4	12.1	2.86	6875	5.08	168.53
010552700-03	OBS	No	135.910835	169.141834	206.3	2.598	8.9	7.9	2.86	6875	4.78	40.19
010552700-04	OBS	No	414.093817	367.252579	237.0	16.216	8.1	7.3	2.86	6875	5.10	9.10
010552700-05	OBS	No	43.917309	161.103293	147.1	1.700	8.6	8.6	2.86	6875	3.99	181.26
010552700-06	OBS	No	53.247872	151.349957	91.0	7.054	8.8	6.3	2.86	6875	2.96	140.20
010552700-07	OBS	No	85.256851	152.433220	118.1	3.369	8.6	5.8	2.86	6875	3.38	74.85
010552700-08	OBS	No	21.570584	139.269988	71.5	2.686	8.6	6.6	2.86	6875	2.83	467.74
010552700-09	OBS	No	46.327798	145.577777	109.3	1.551	8.6	5.5	2.86	6875	3.38	168.80
010552700-10	OBS	No	58.468746	146.900902	150.9	2.910	7.9	7.3	2.86	6875	4.03	123.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010552700-01	OBS	FP	0.00	1	0	0	0	LPP_DV
010552700-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
010552700-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
010552700-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
010552700-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV
010552700-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
010552700-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET—HALO_GHOST
010552700-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
010552700-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
010552700-10	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST

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

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

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

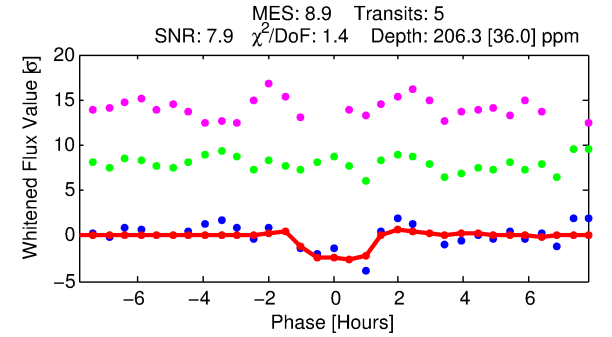
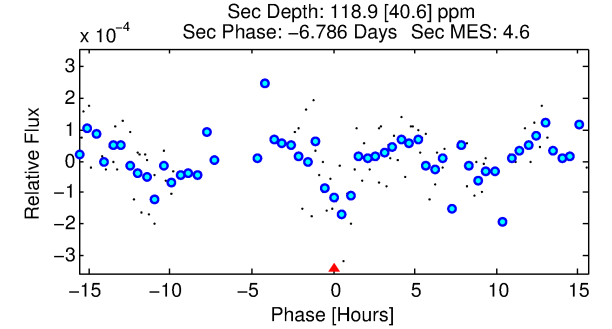
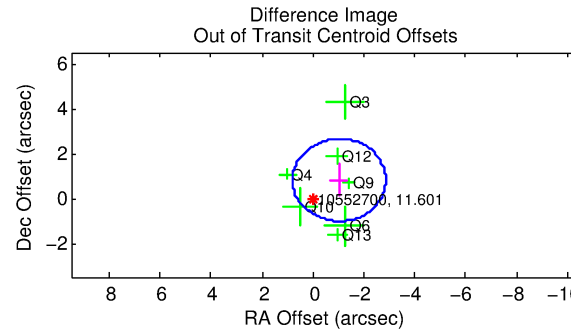
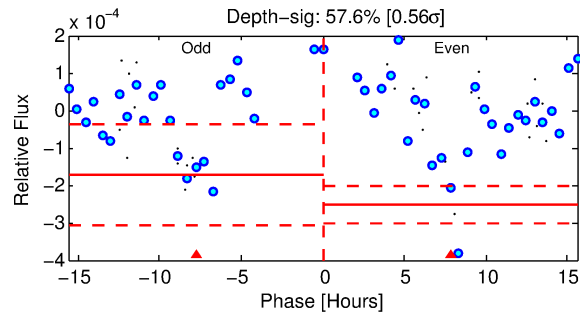
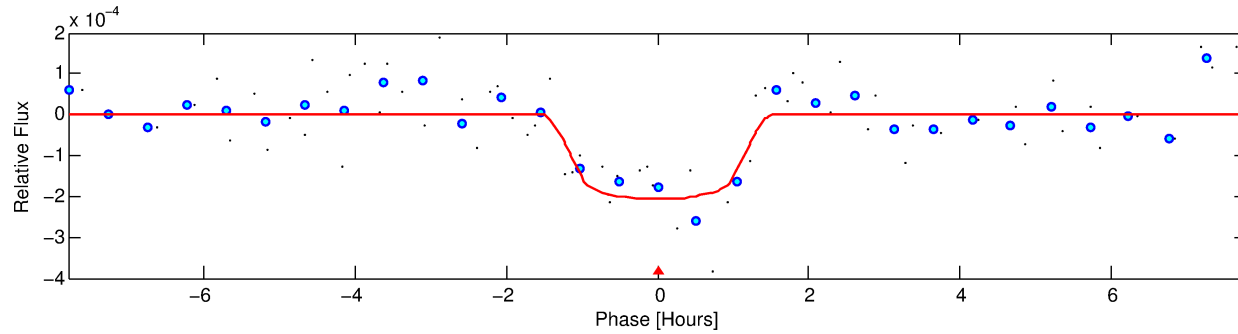
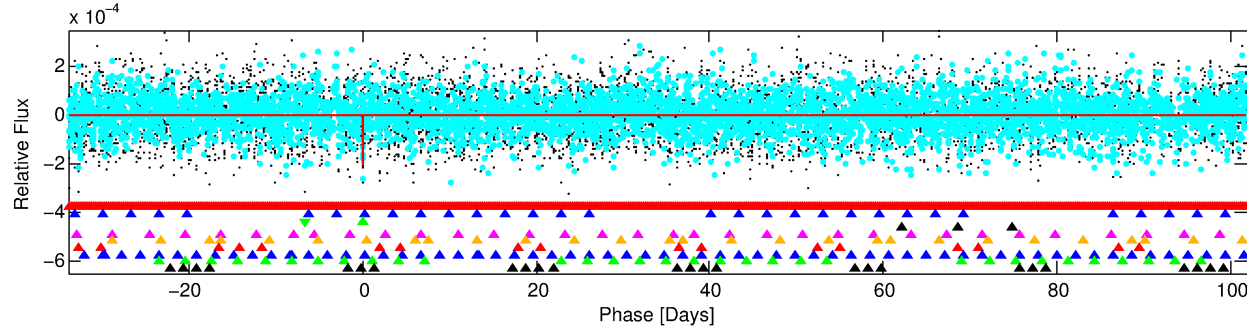
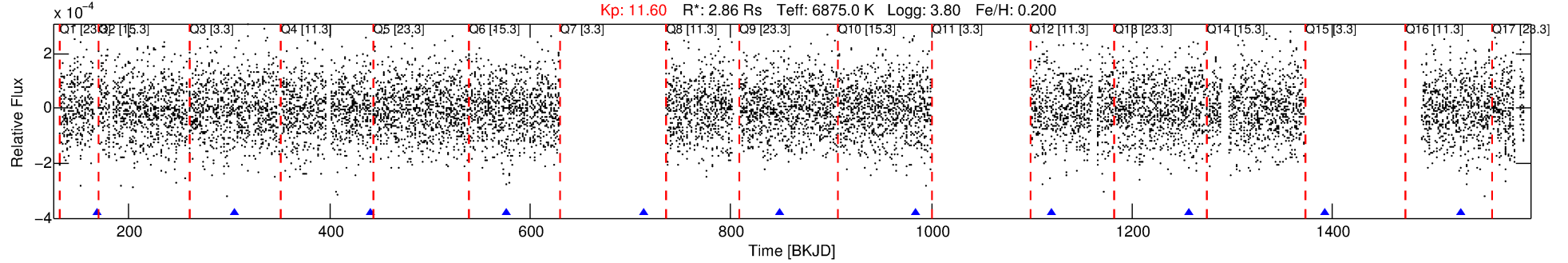
Ephemeris Match Information For 010552700-03

No Significant Match Found

DV One-Page Summary

KIC: 10552700 Candidate: 3 of 10 Period: 135.911 d
KOI: K07342 Corr: No Ephemeris Match

Kp: 11.60 R*: 2.86 Rs Teff: 6875.0 K Logg: 3.80 Fe/H: 0.200



DV Fit Results:

Period = 135.91083 [0.00142] d
Epoch = 169.1418 [0.0095] BKJD
Rp/R* = 0.0153 [0.0085]
a/R* = 188.21 [610.32]
b = 0.90 [0.70]
Seff = 40.19 [18.98]
Teq = 642 [76] K
Rp = 4.78 [3.08] Re
a = 0.6373 [0.1882] AU
Ag = 1164.59 [1455.62] [0.80σ]
Teffp = 5799 [1699] K [3.03σ]

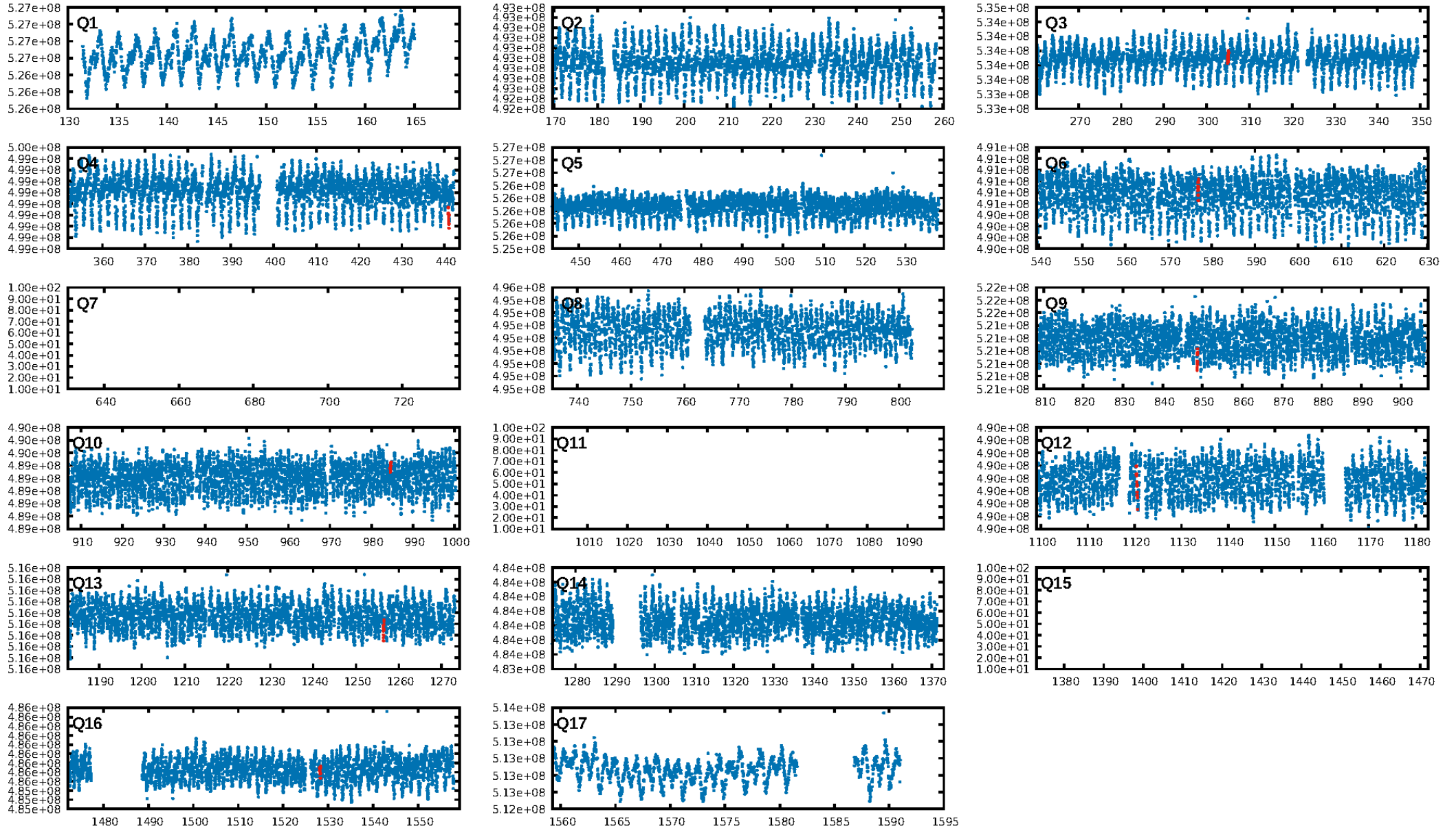
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [285.72σ]
LongPeriod-sig: 100.0% [406.54σ]
ModelChiSquare2-sig: 32.2%
ModelChiSquareGof-sig: 95.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: 1.333
Centroid-sig: 16.9%
Centroid-so: 1.302 arcsec [1.59σ]
OotOffset-rm: 1.316 arcsec [2.15σ]
OotOffset-st: 2/1/2/2 [7]
KicOffset-rm: 1.337 arcsec [3.06σ]
KicOffset-st: 2/1/2/2 [7]
DiffImageQuality-fgm: 0.71 [5/7]
DiffImageOverlap-fno: 0.25 [2/8]

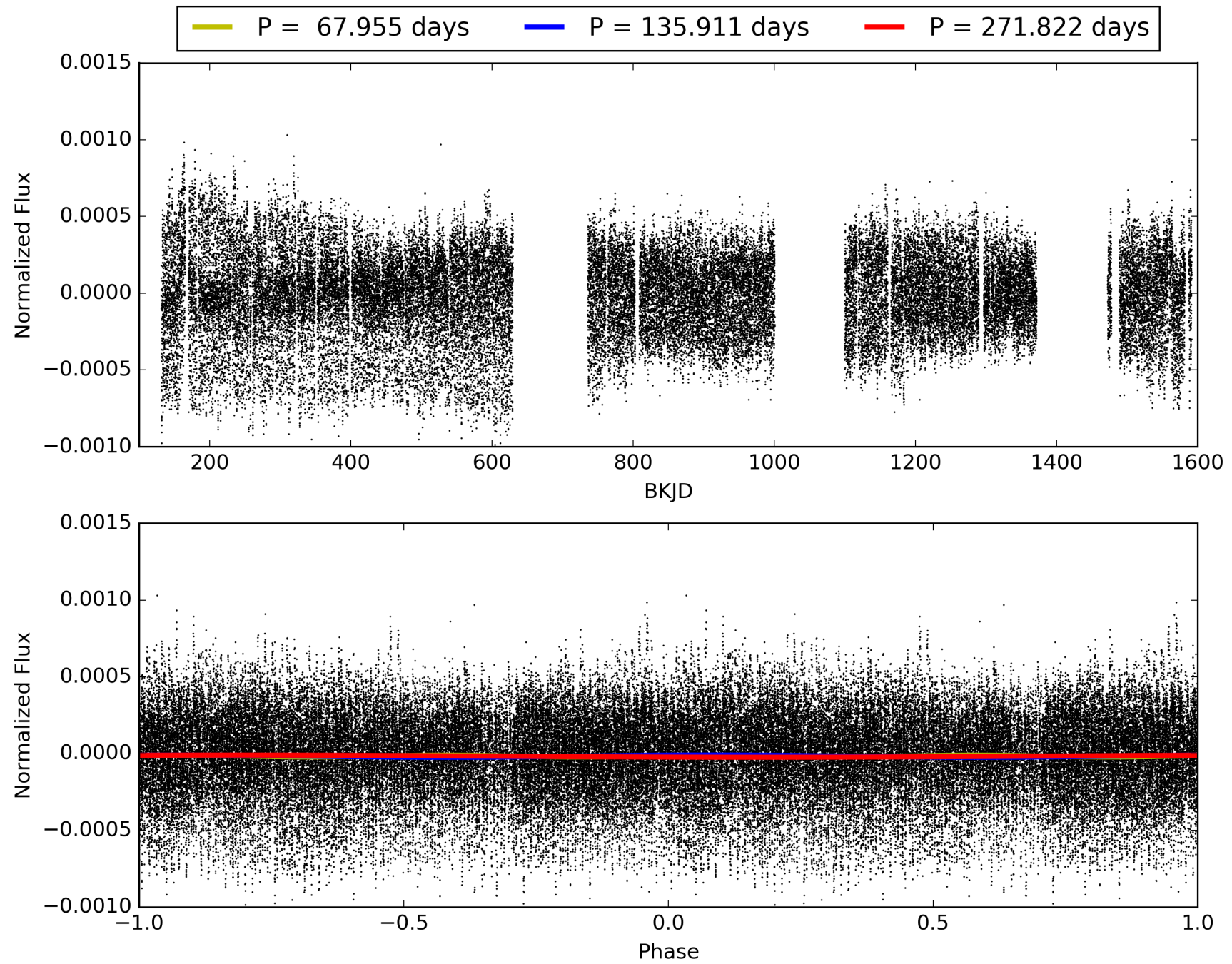
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 010552700-03, PDC Light Curves

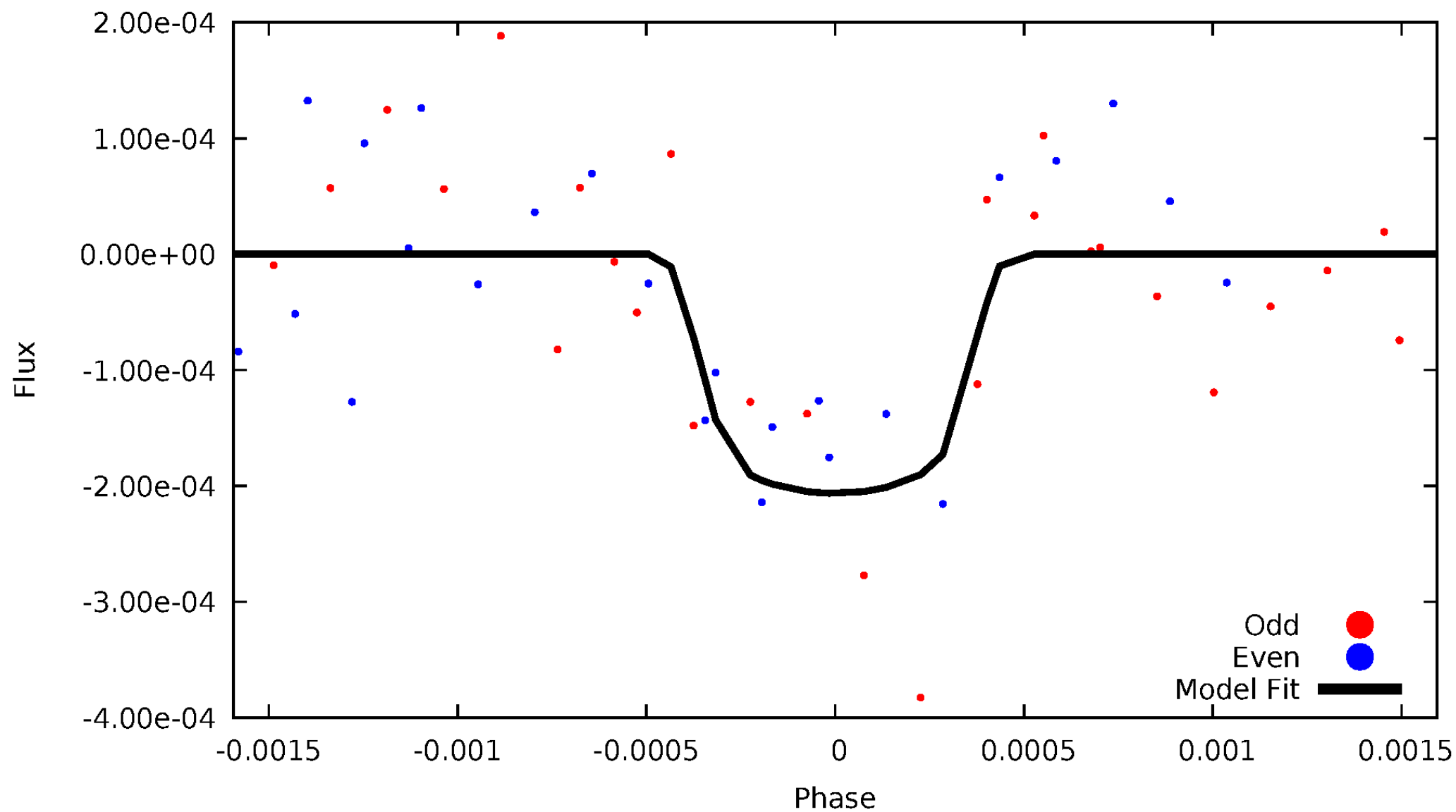


TCE 010552700-03



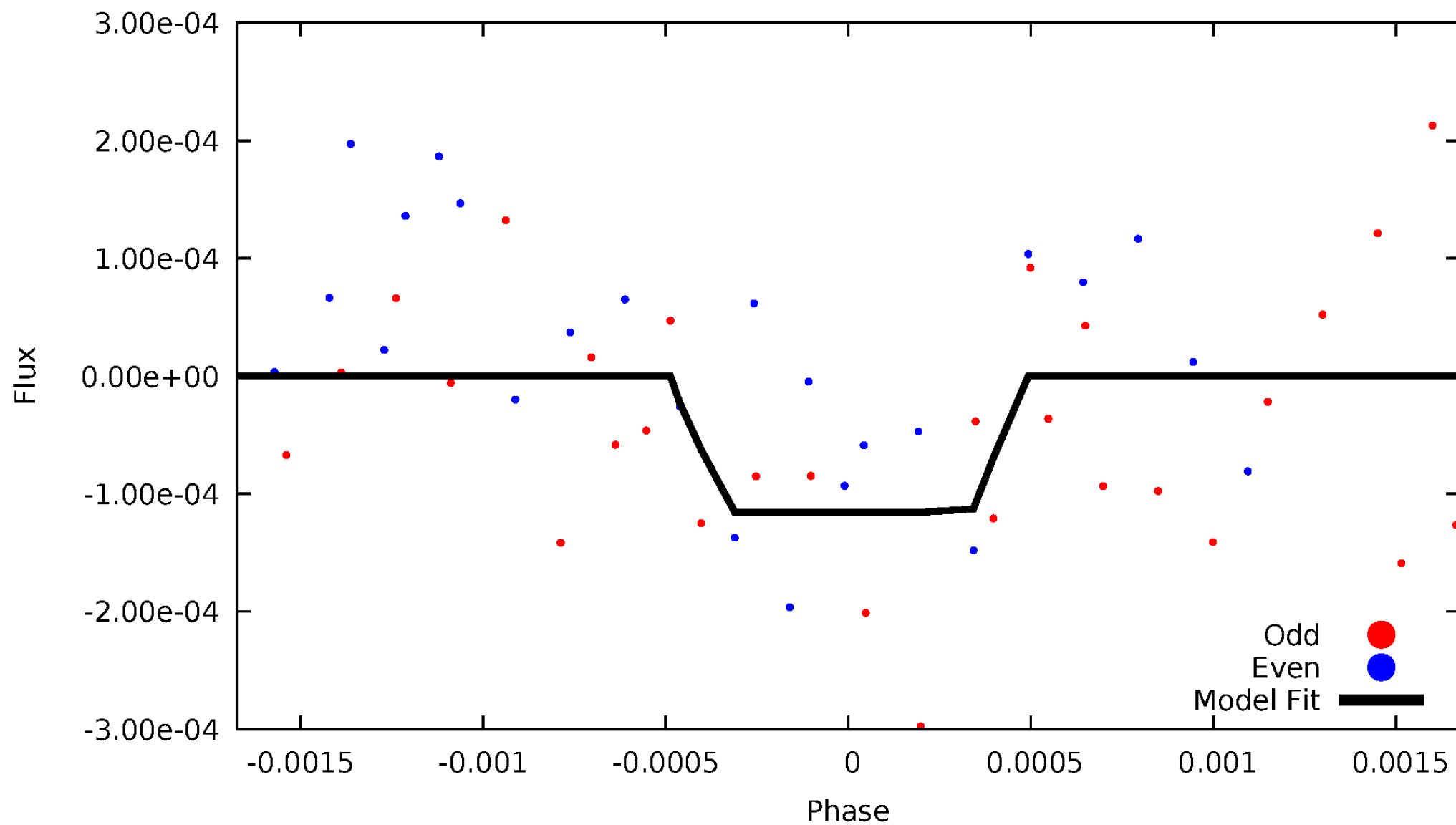
DV Odd/Even

TCE 010552700-03



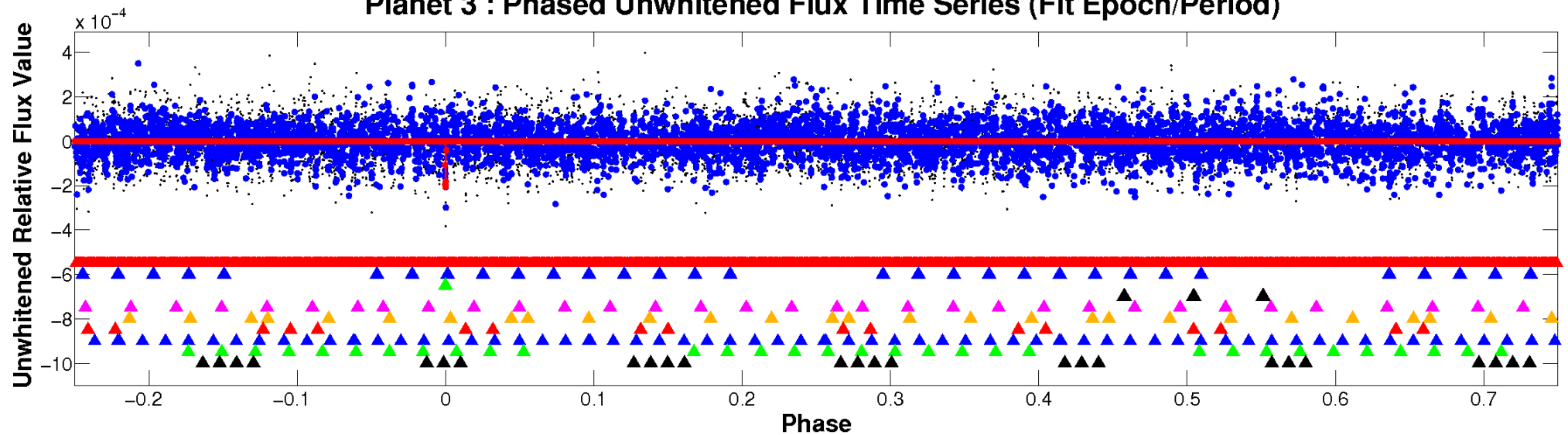
ALT Odd/Even

TCE 010552700-03

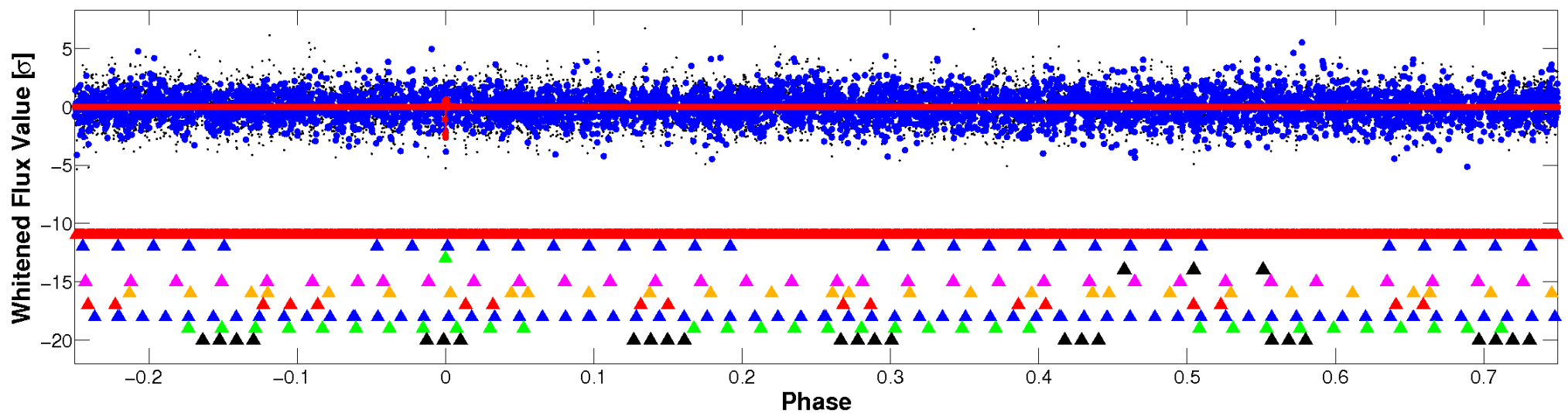


Non-Whitened Vs. Whitened Light Curve

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

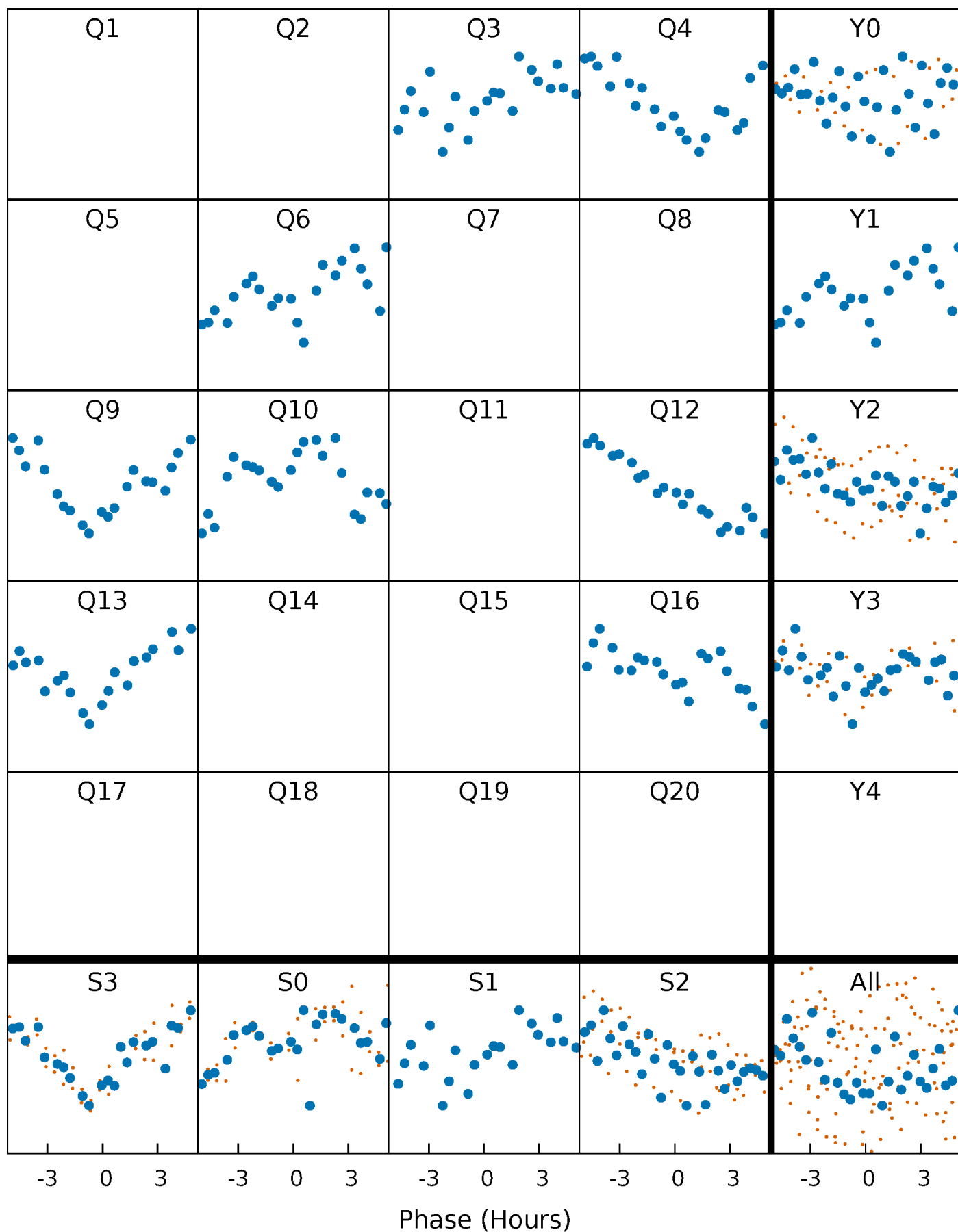


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



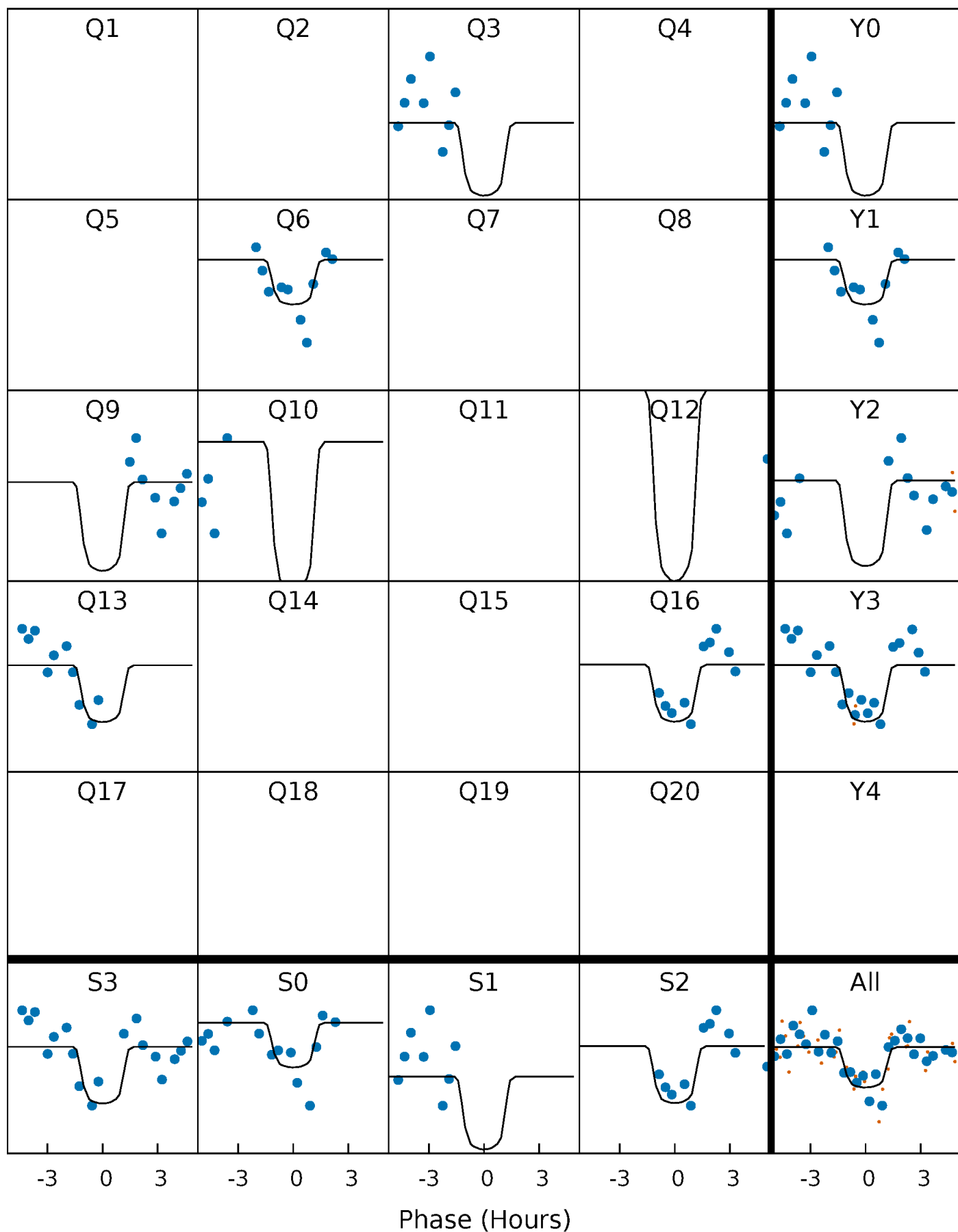
PDC Quarter-Phased Transit Curves

TCE 010552700-03 $P=135.910834$ Days $T_0=169.141834$ (BKJD)



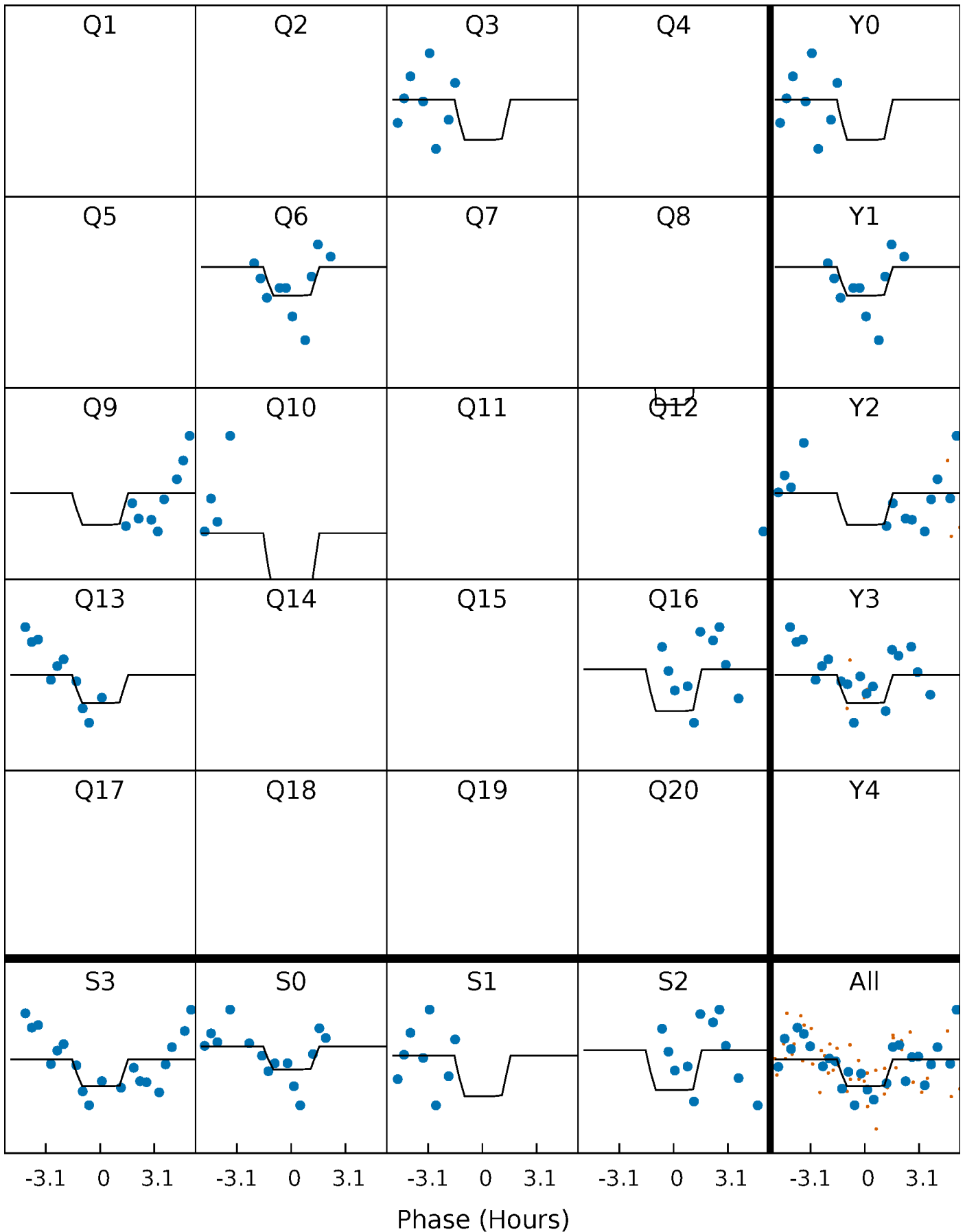
DV Quarter-Phased Transit Curves

TCE 010552700-03 P=135.910834 Days $T_0=169.141834$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

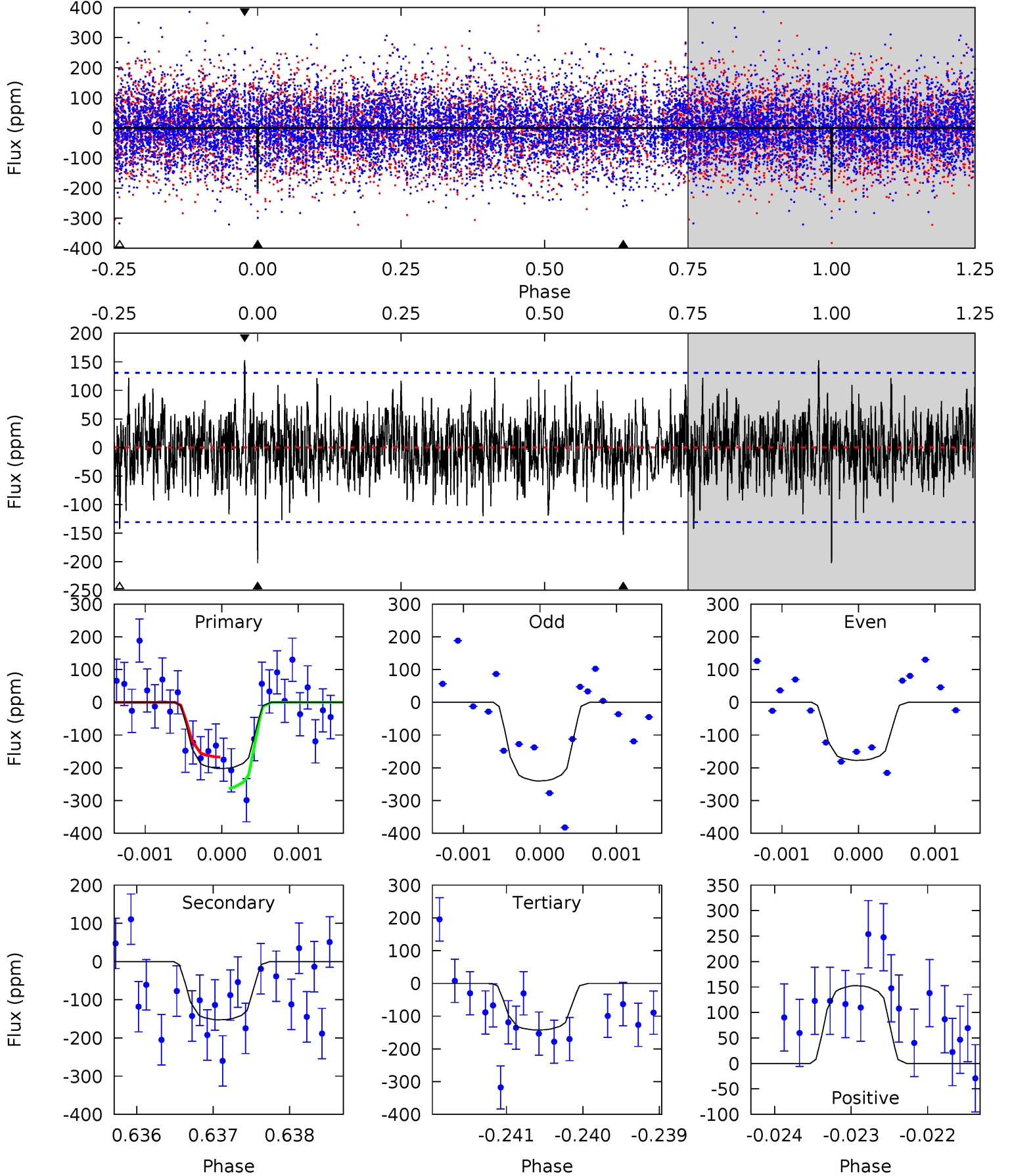
TCE 010552700-03 P=135.909164 Days $T_0=169.150707$ (BKJD)



DV Model-Shift Uniqueness Test

010552700-03, P = 135.910834 Days, E = 33.231000 Days

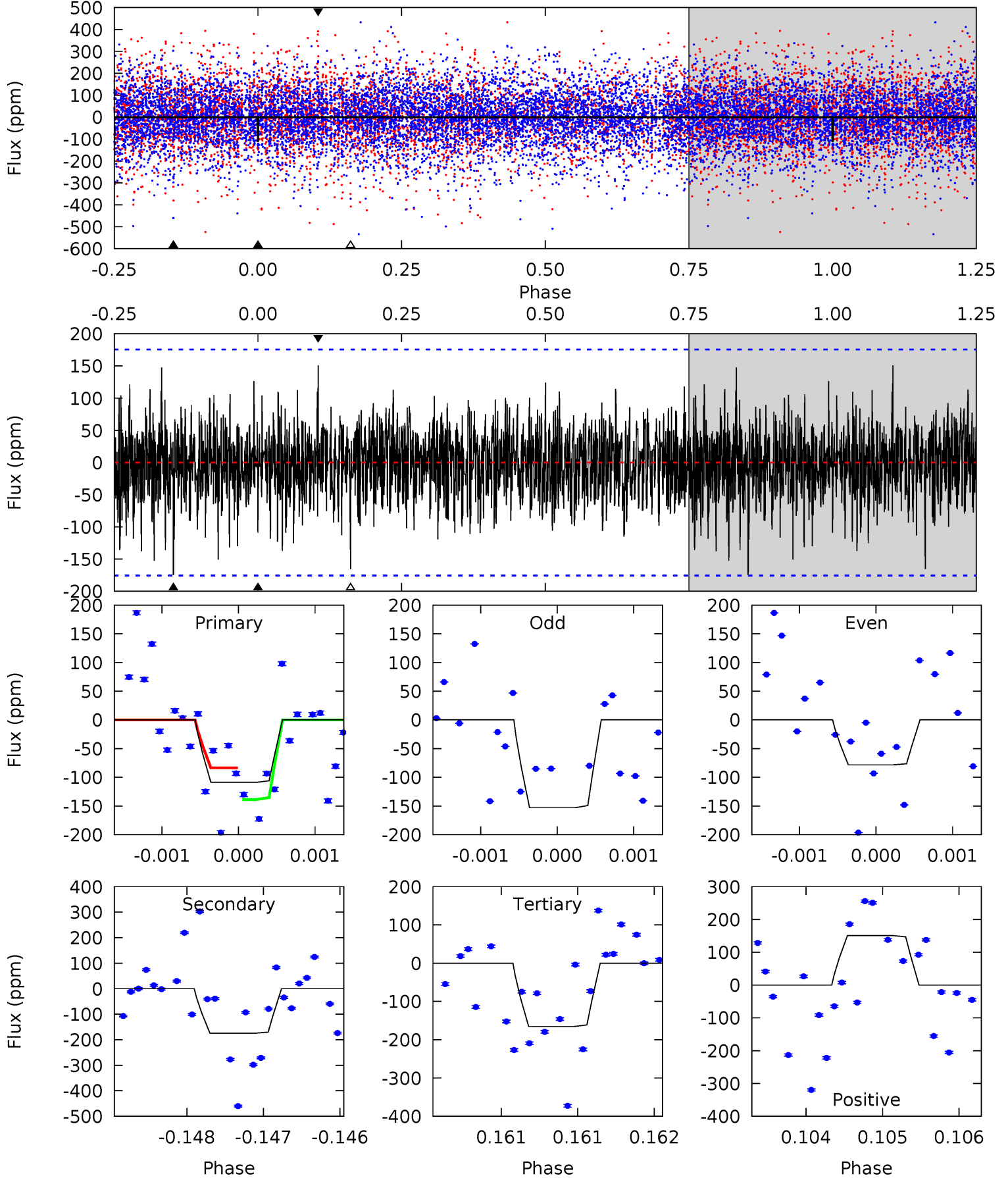
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.50	6.40	5.98	6.41	5.49	3.35	1.67	2.52	2.09	0.43	-0.01	1.31	1.09	0.43	1.99



Alt Model-Shift Uniqueness Test

010552700-03, P = 135.909164 Days, E = 33.241543 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.40	5.44	5.16	4.70	5.48	3.33	1.36	-1.77	-1.31	0.28	0.74	1.18	0.78	0.46	0.85



Stellar Parameters For KIC 010552700

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6875^{+164}_{-226}	$3.798^{+0.259}_{-0.111}$	$0.200^{+0.200}_{-0.300}$	$2.856^{+0.503}_{-0.935}$	$1.868^{+0.180}_{-0.361}$	$0.113^{+0.194}_{-0.039}$
	+2%/-3%	+7%/-3%	+100%/-150%	+18%/-33%	+10%/-19%	+172%/-35%
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 010552700-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-153 ± 24	$4.64^{+2.59}_{-2.40}$	882^{+56}_{-73}	6094^{+3032}_{-1159}	1558^{+5044}_{-917}
Alt.	-174 ± 32	$3.47^{+2.40}_{-2.07}$	882^{+56}_{-69}	7273^{+6792}_{-1709}	3083^{+16813}_{-2002}

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

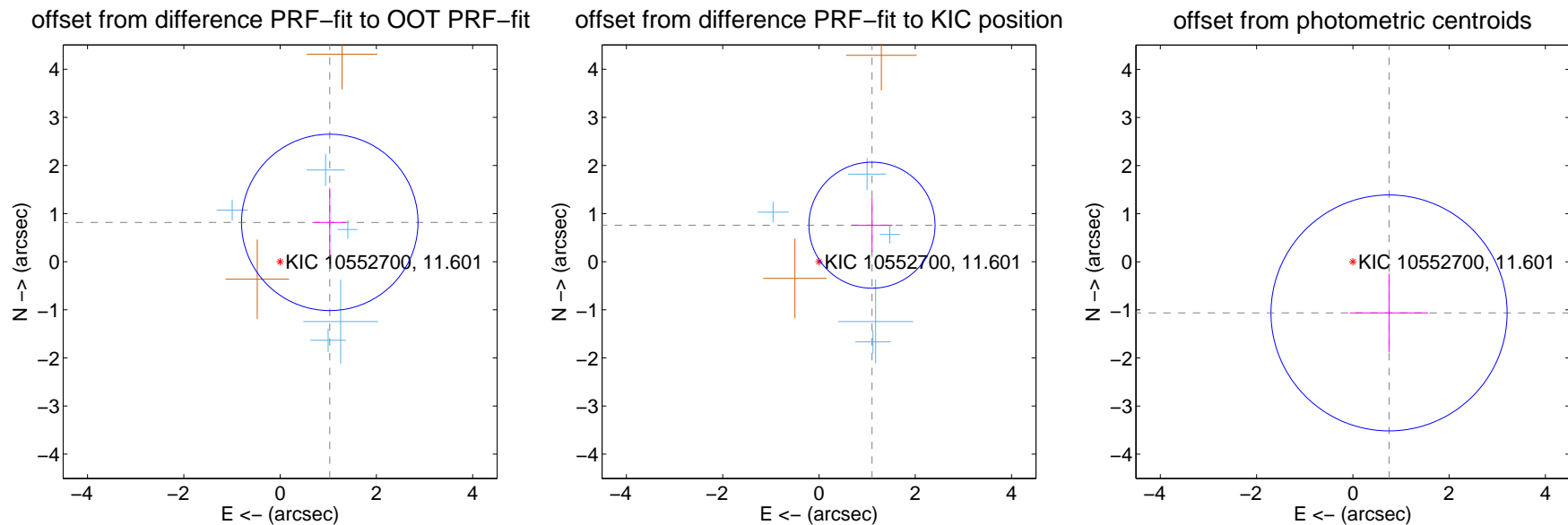
DV Centroid Data

Supplemental centroid analysis for 010552700-03. **Kepler magnitude: 11.60.** Transit SNR 7.89

There are 5 quarters with good PRF difference image offsets

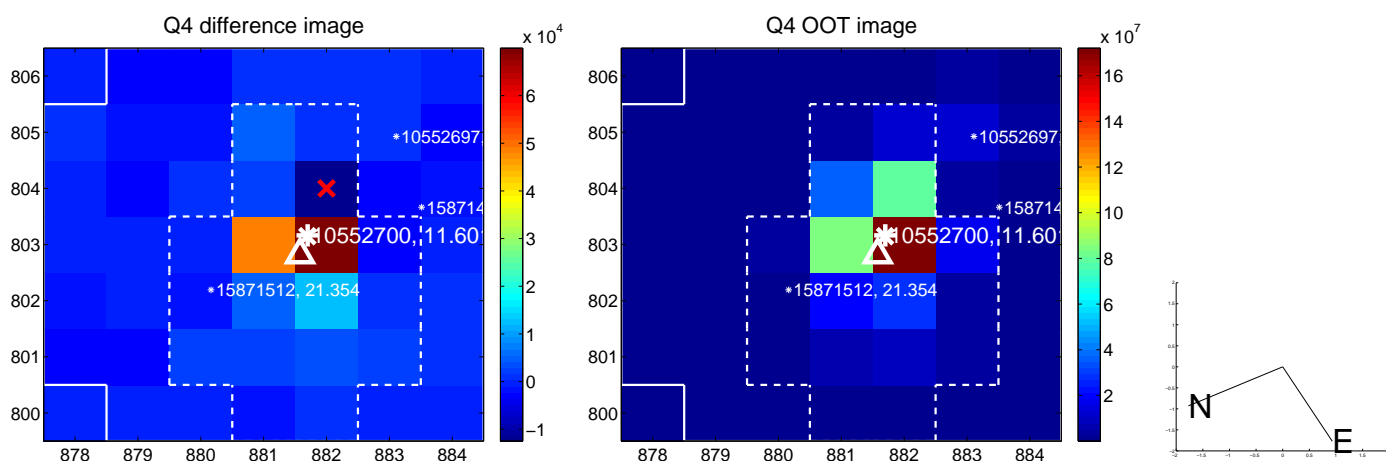
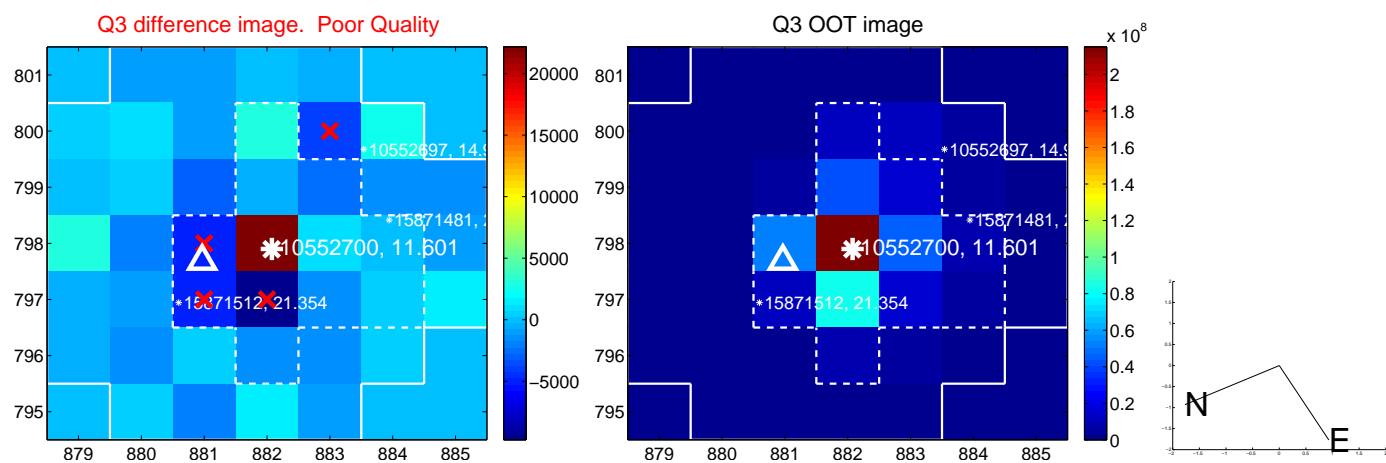
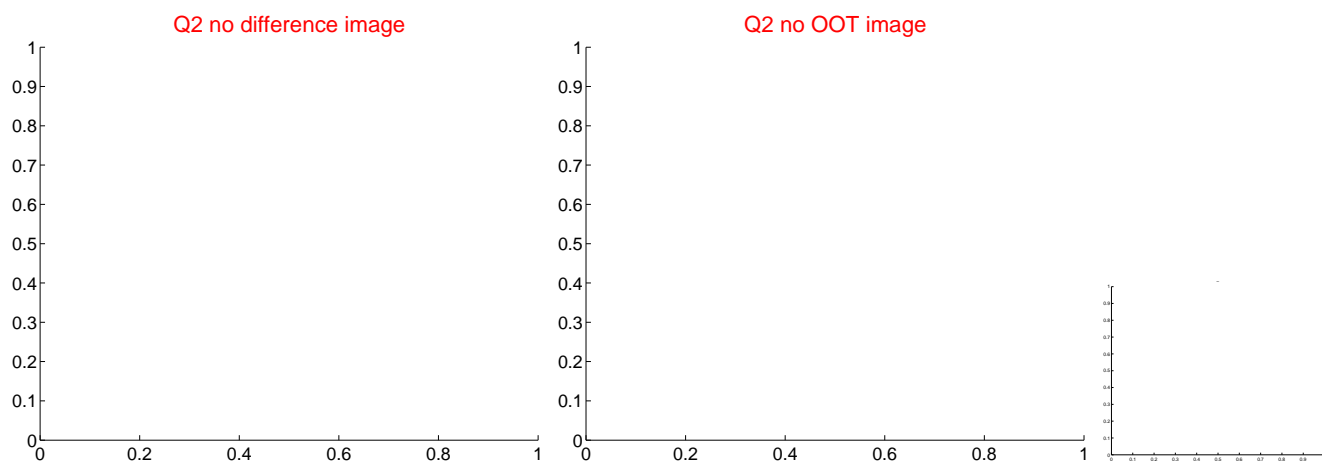
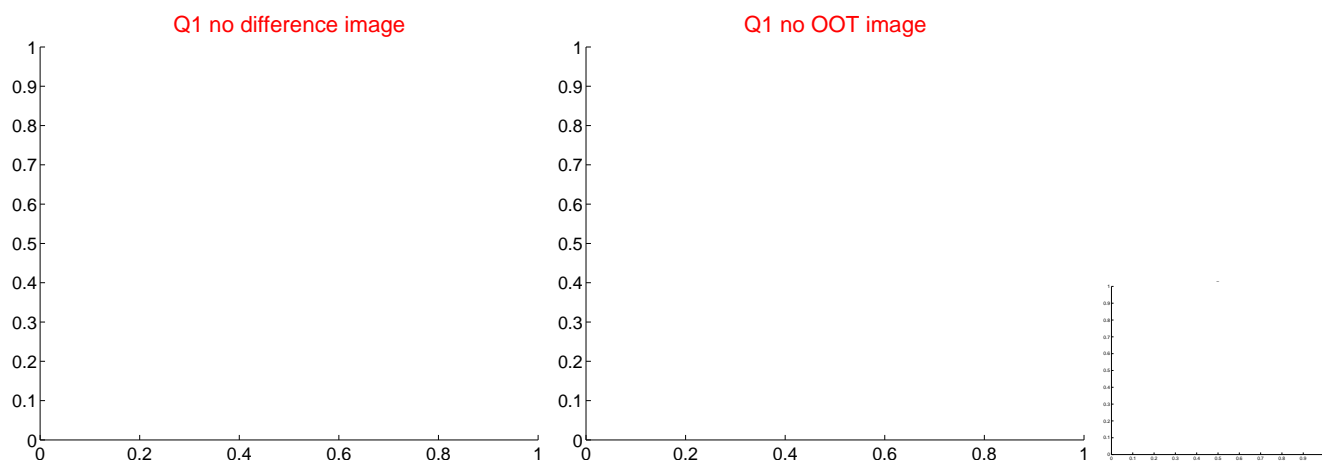
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.316 ± 0.611	2.15	-1.031 ± 0.334	0.817 ± 0.716
PRF-fit source offset from KIC position	1.337 ± 0.436	3.06	-1.100 ± 0.429	0.759 ± 0.563
photometric centroid source offset	1.30 ± 0.82	1.59	-0.75 ± 0.81	-1.06 ± 0.82

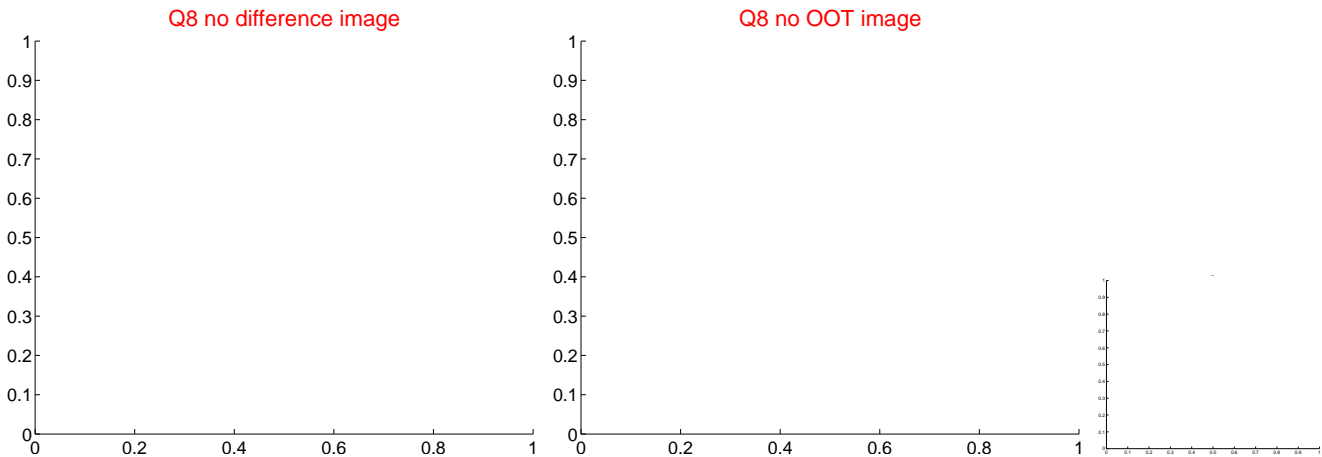
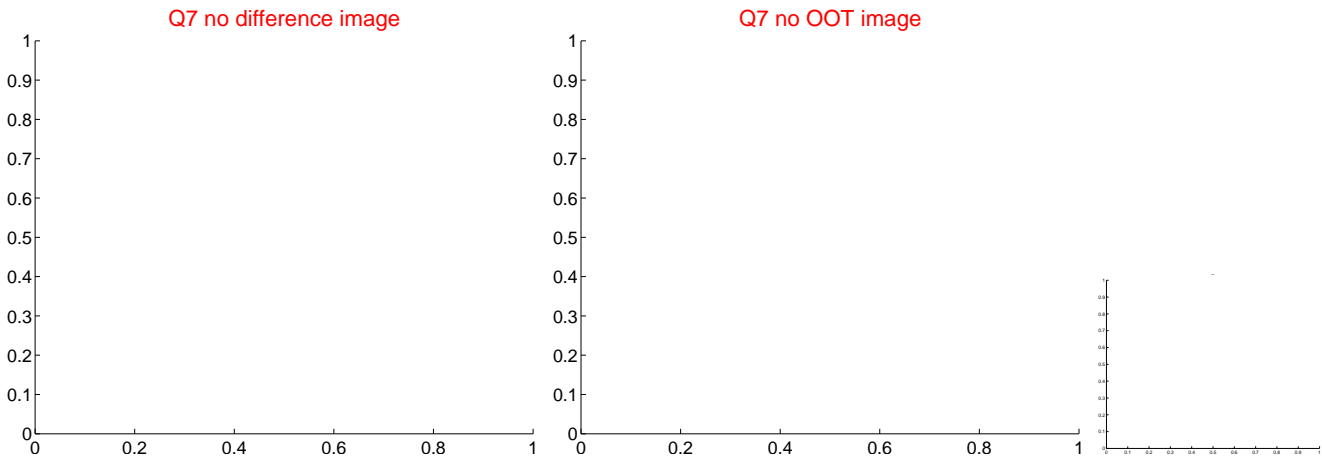
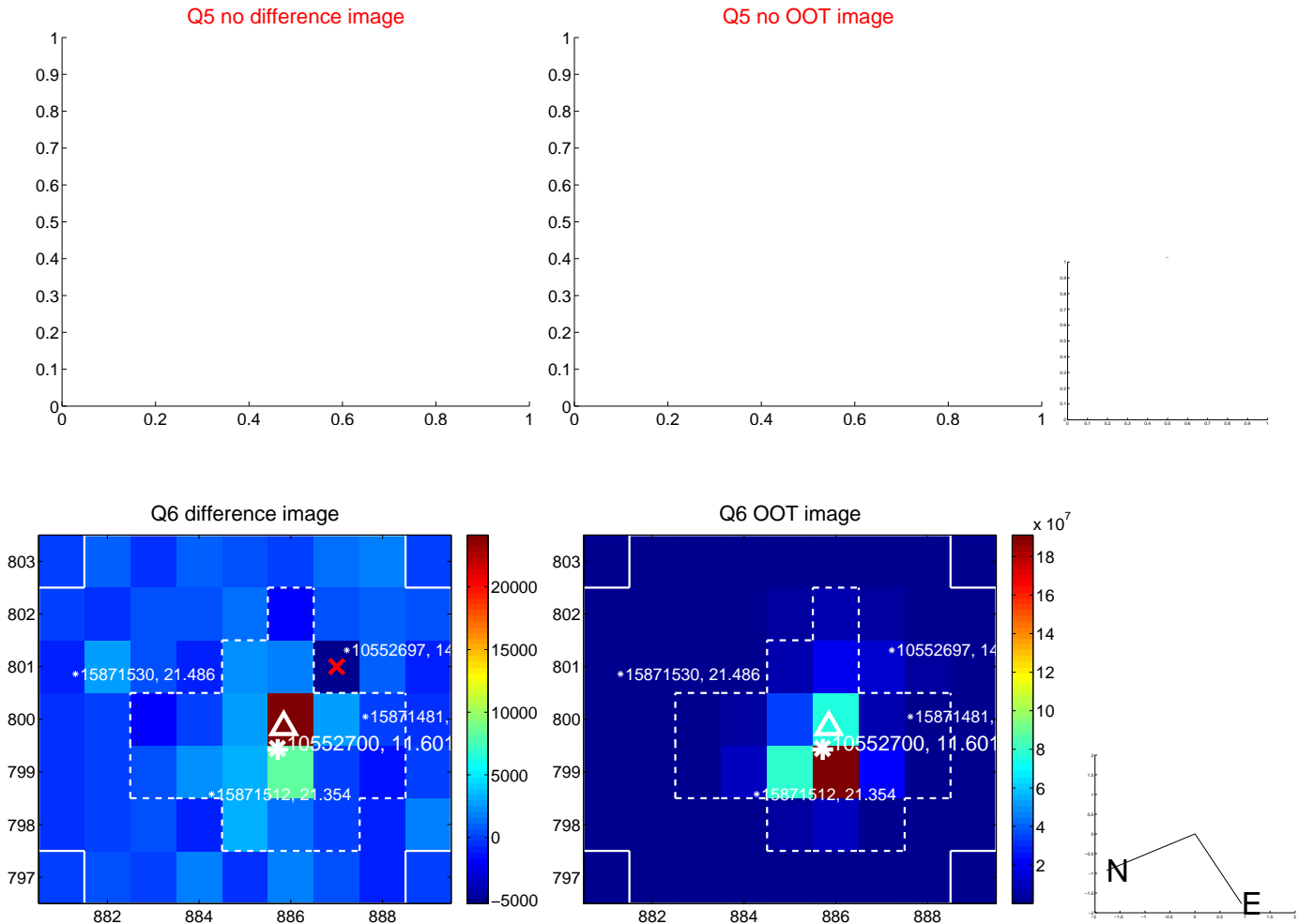


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

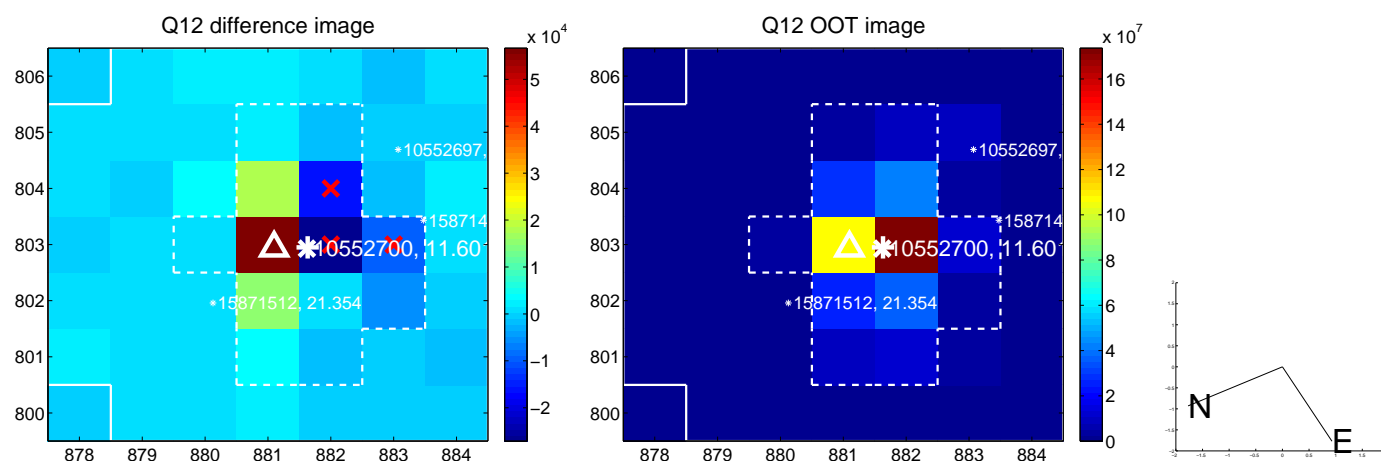
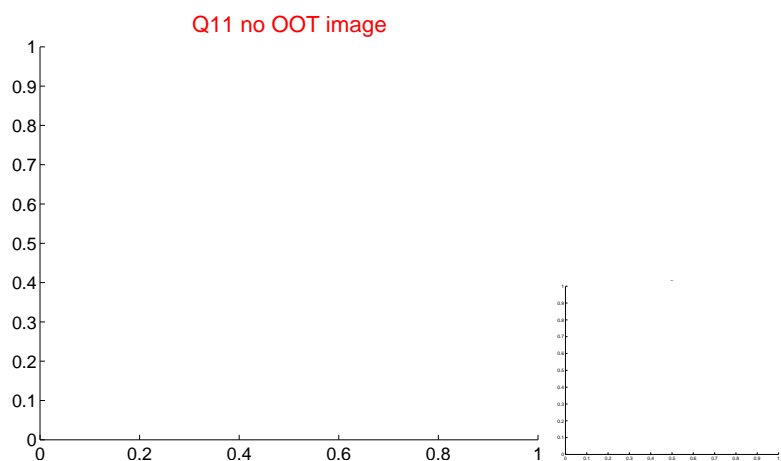
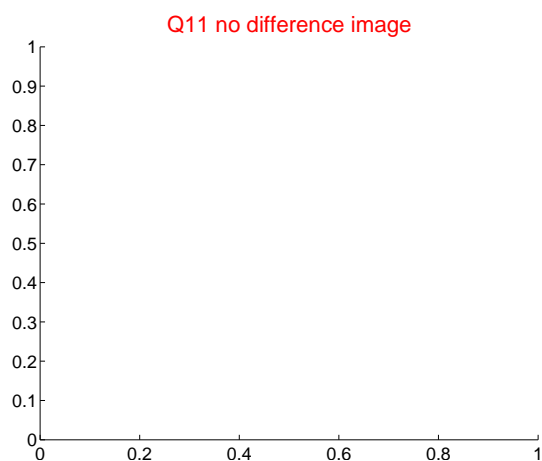
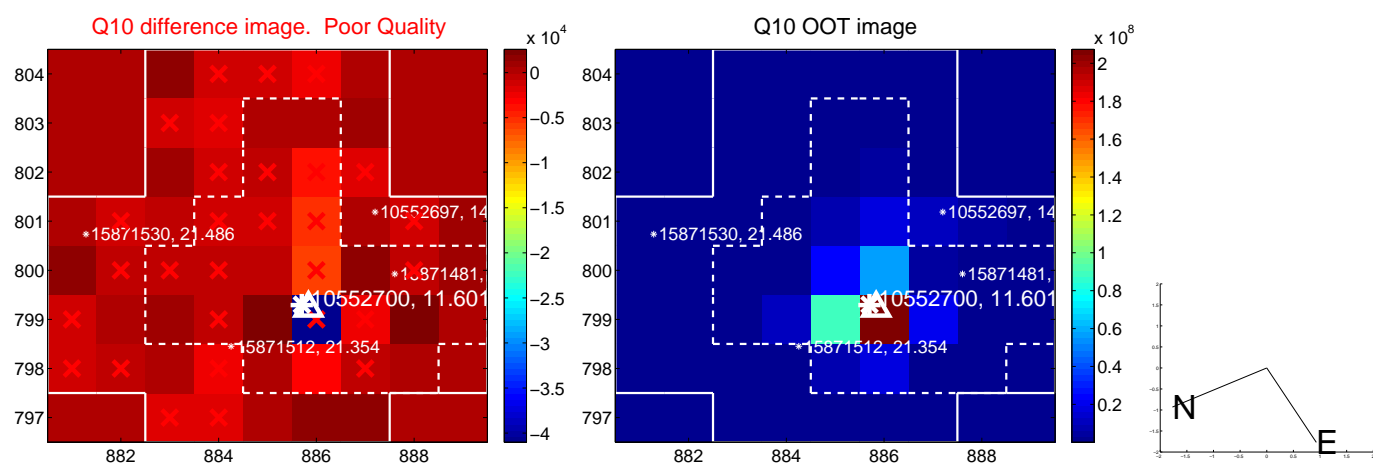
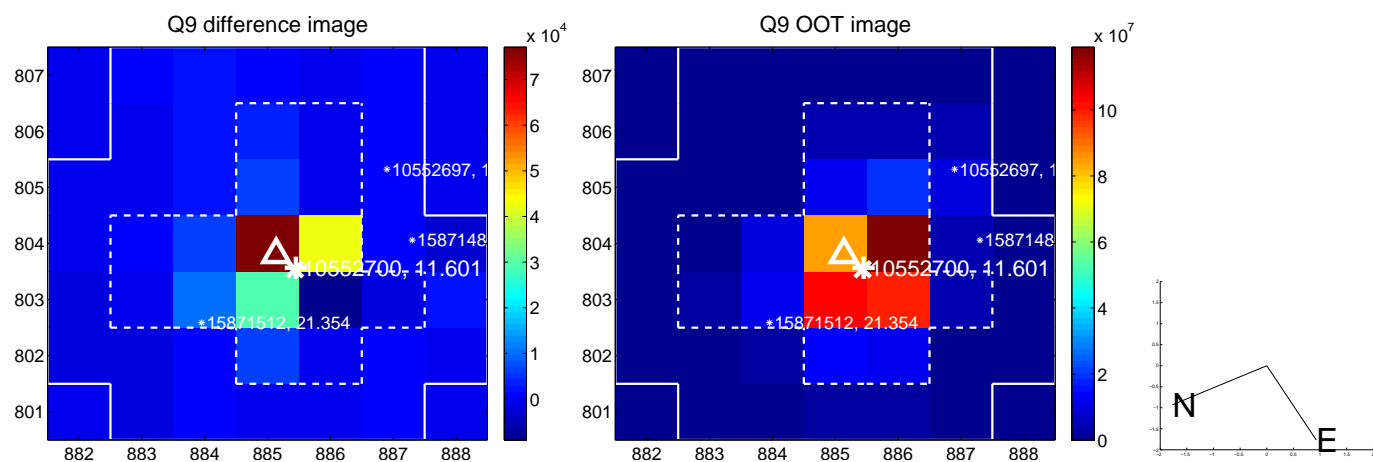
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



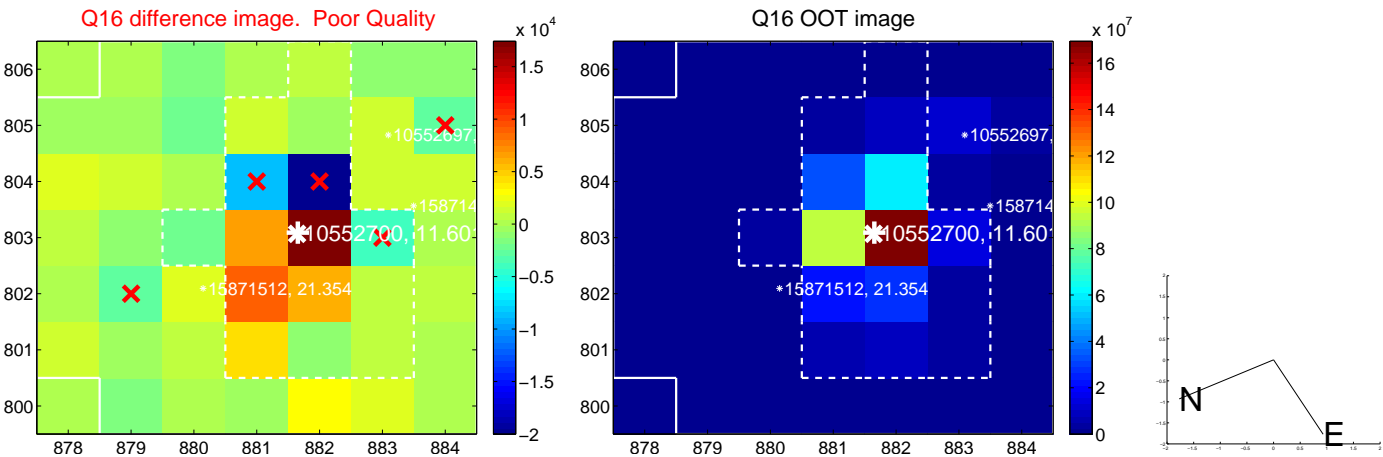
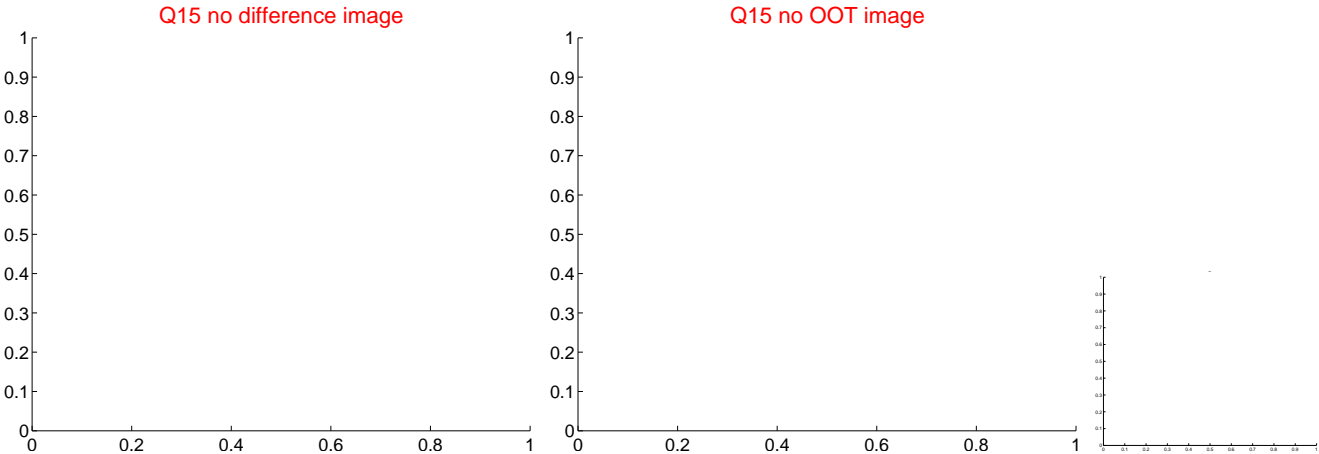
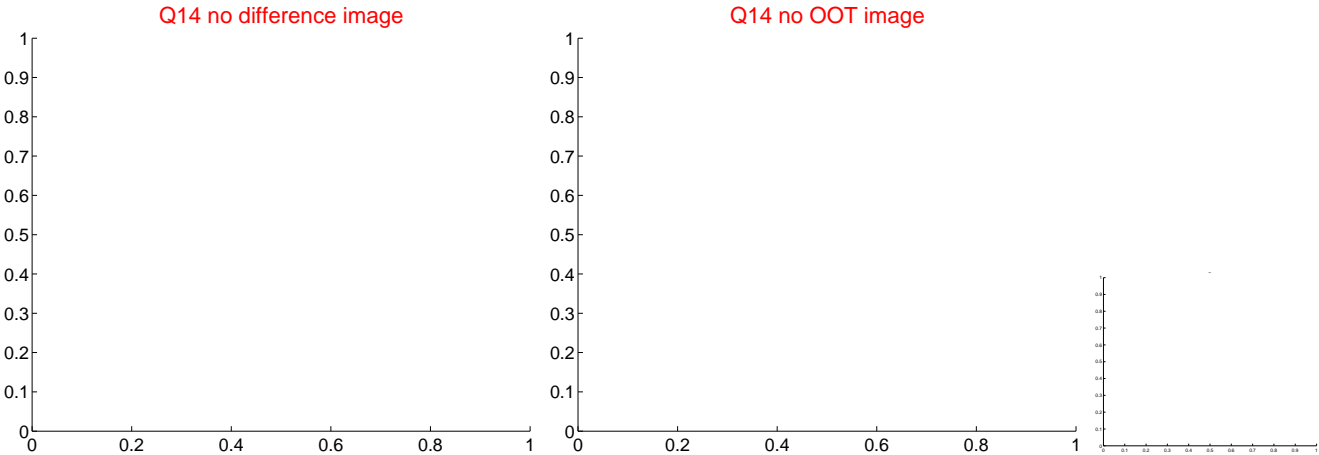
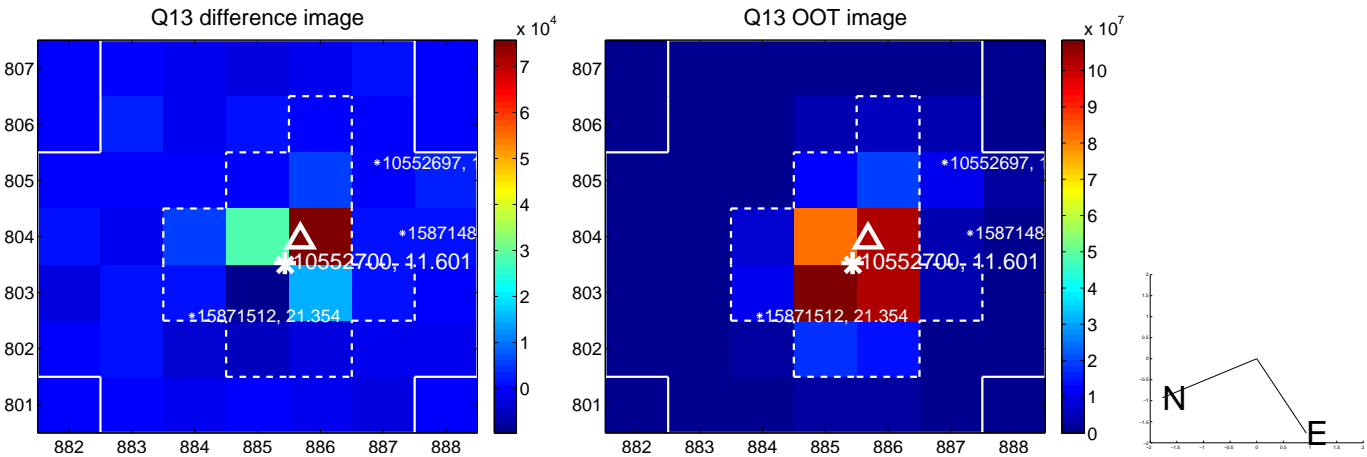
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



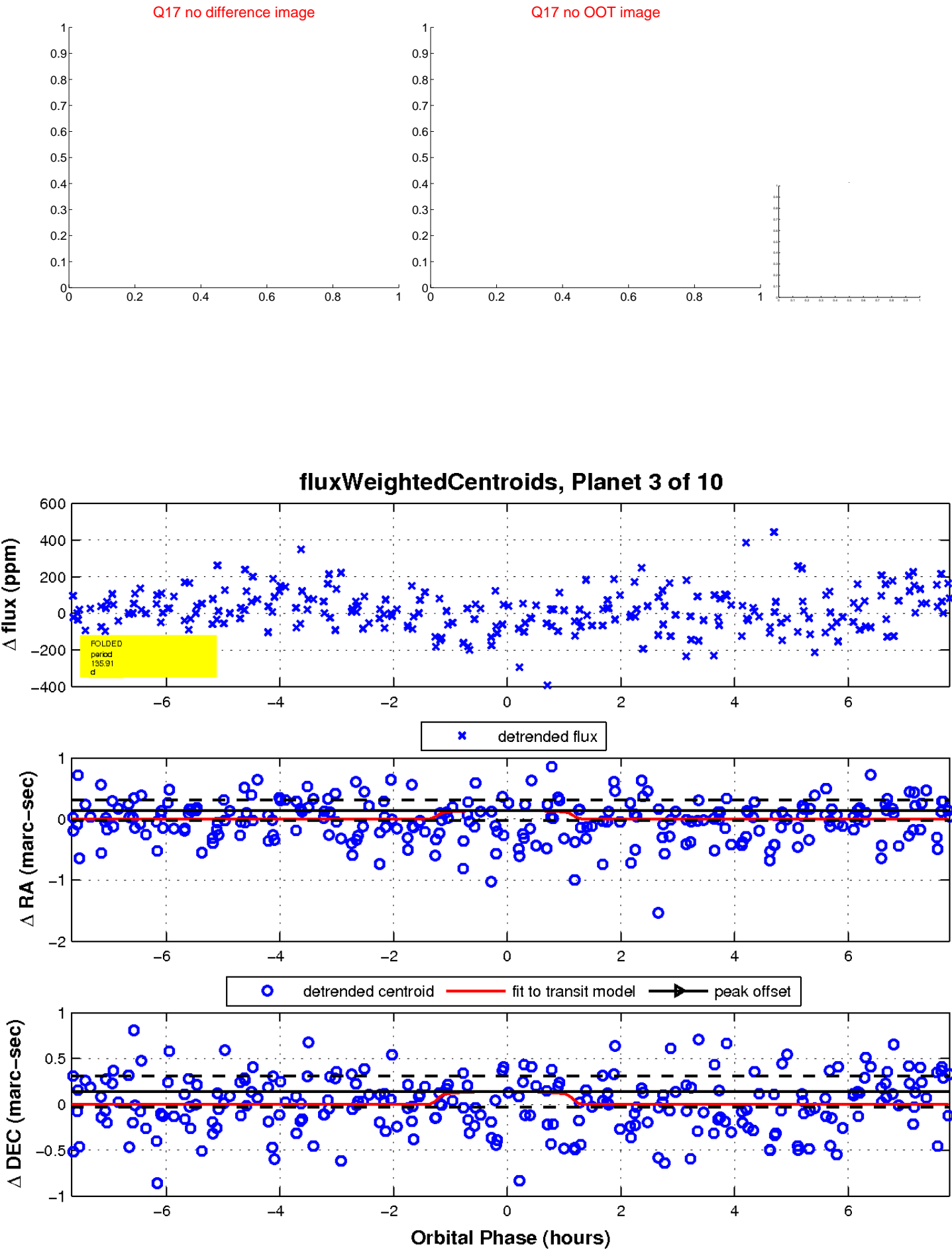
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

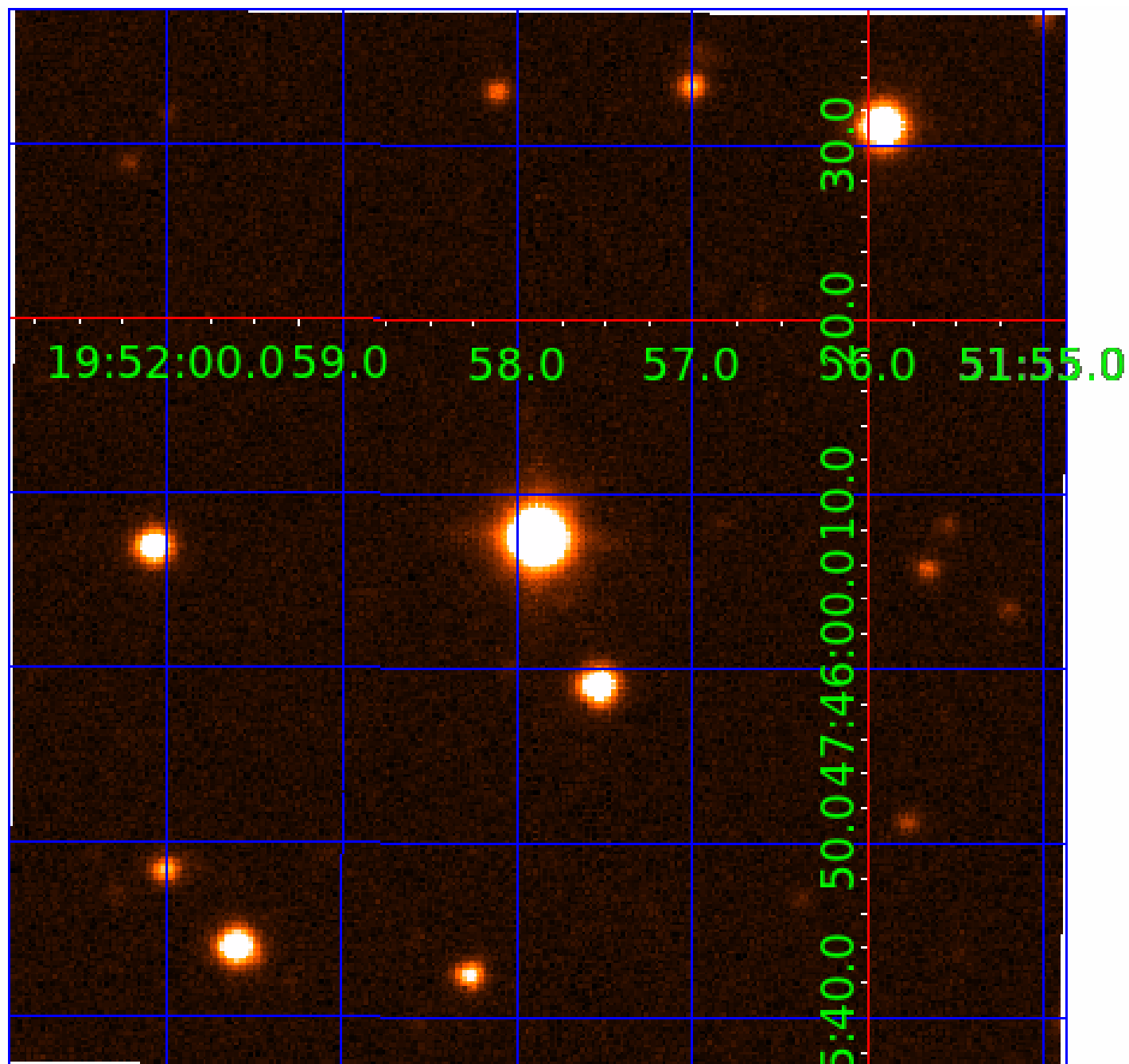


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
010552700-01	OBS	7342.01	0.947637	131.958058	3.9	5.827	10.7	2.8	2.86	6875	0.66	30174.11
010552700-02	OBS	No	46.382972	162.859199	245.5	1.305	9.4	12.1	2.86	6875	5.08	168.53
010552700-03	OBS	No	135.910835	169.141834	206.3	2.598	8.9	7.9	2.86	6875	4.78	40.19
010552700-04	OBS	No	414.093817	367.252579	237.0	16.216	8.1	7.3	2.86	6875	5.10	9.10
010552700-05	OBS	No	43.917309	161.103293	147.1	1.700	8.6	8.6	2.86	6875	3.99	181.26
010552700-06	OBS	No	53.247872	151.349957	91.0	7.054	8.8	6.3	2.86	6875	2.96	140.20
010552700-07	OBS	No	85.256851	152.433220	118.1	3.369	8.6	5.8	2.86	6875	3.38	74.85
010552700-08	OBS	No	21.570584	139.269988	71.5	2.686	8.6	6.6	2.86	6875	2.83	467.74
010552700-09	OBS	No	46.327798	145.577777	109.3	1.551	8.6	5.5	2.86	6875	3.38	168.80
010552700-10	OBS	No	58.468746	146.900902	150.9	2.910	7.9	7.3	2.86	6875	4.03	123.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010552700-01	OBS	FP	0.00	1	0	0	0	LPP_DV
010552700-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
010552700-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
010552700-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
010552700-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV
010552700-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
010552700-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET—HALO_GHOST
010552700-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
010552700-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
010552700-10	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST

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

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

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

Ephemeris Match Information For 010552700-04

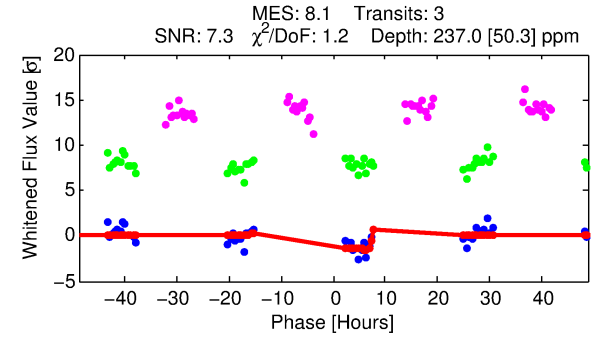
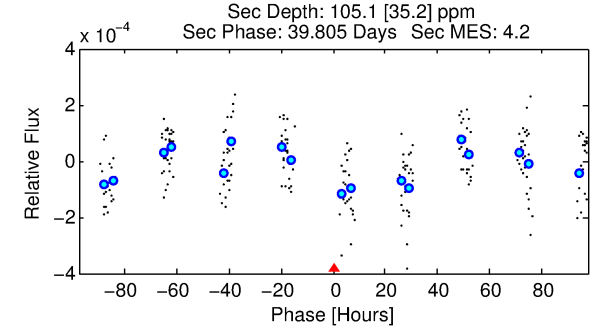
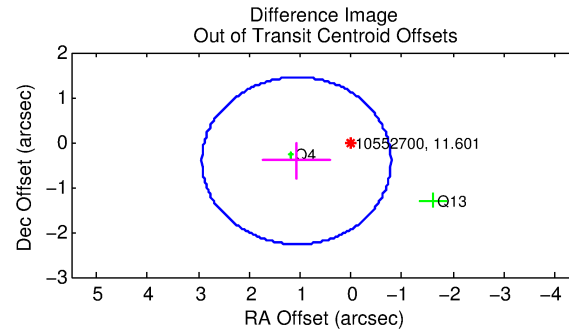
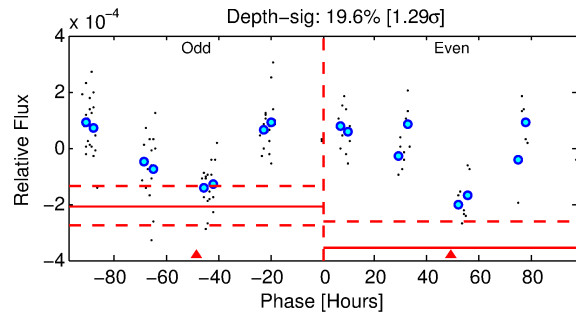
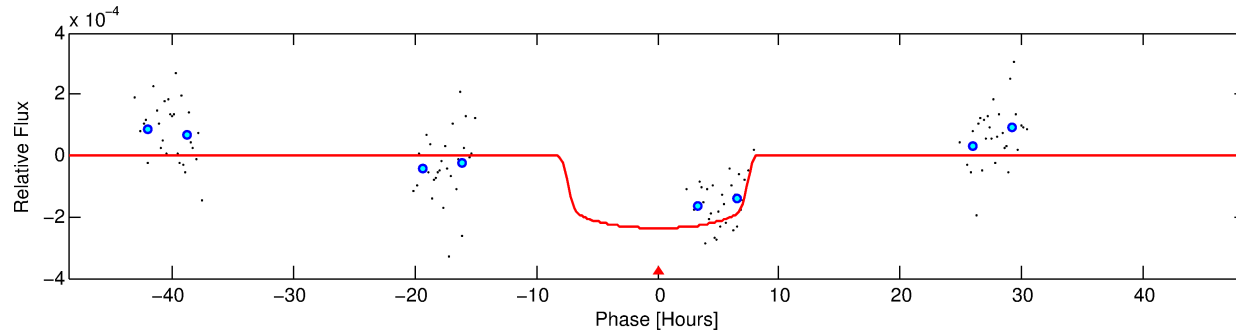
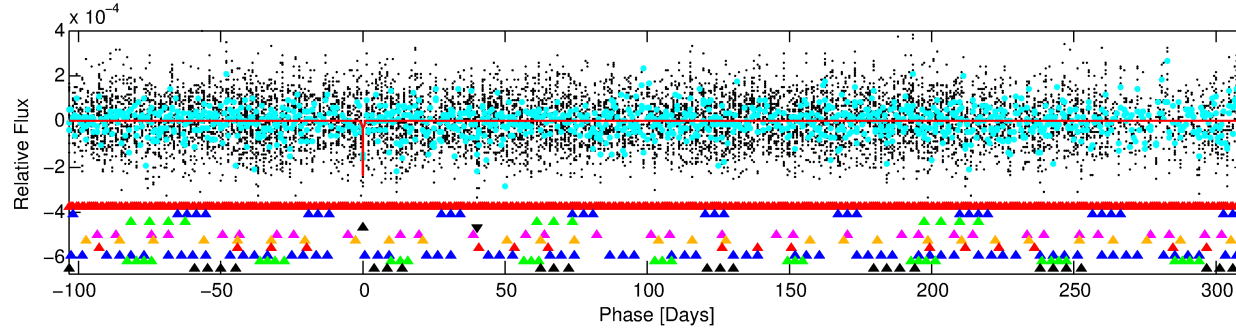
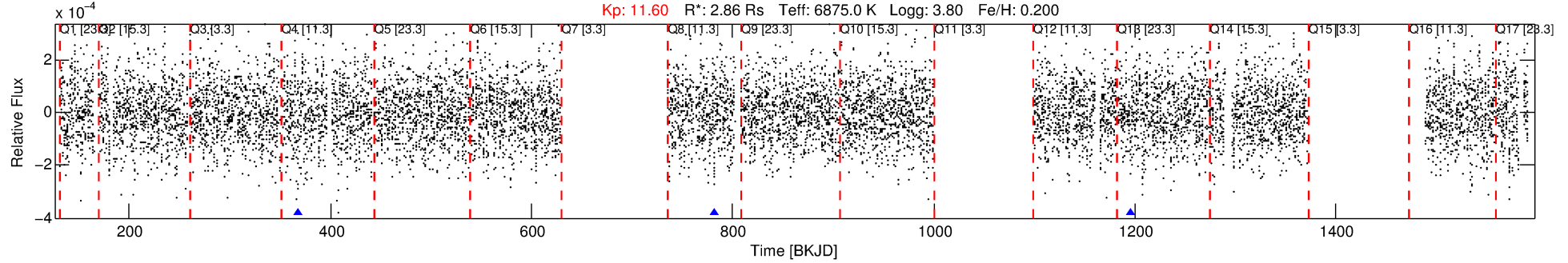
No Significant Match Found

DV One-Page Summary

KIC: 10552700 Candidate: 4 of 10 Period: 414.094 d

KOI: K07342 Corr: No Ephemeris Match

Kp: 11.60 R*: 2.86 Rs Teff: 6875.0 K Logg: 3.80 Fe/H: 0.200



DV Fit Results:

Period = 414.09382 [0.02862] d
Epoch = 367.2526 [0.1571] BKJD
Rp/R* = 0.0164 [0.0030]
a/R* = 93.82 [103.64]
b = 0.90 [0.15]
Seff = 9.10 [4.30]
Teq = 443 [52] K
Rp = 5.10 [1.92] Re
a = 1.3395 [0.3954] AU
Ag = 3993.35 [2694.65] [1.48σ]
Teffp = 5443 [703] K [7.09σ]

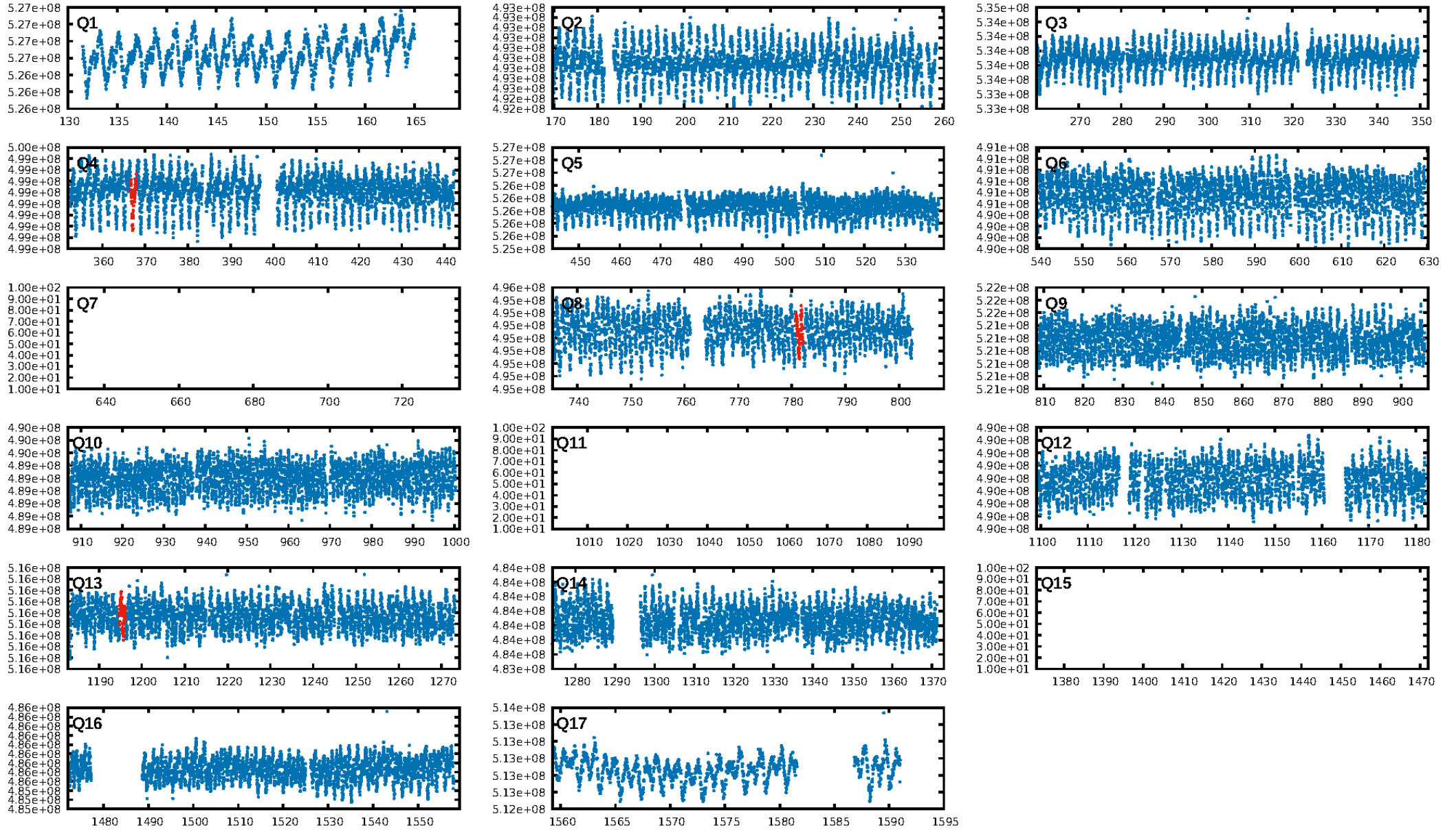
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [406.54σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 58.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.9754
Centroid-sig: 59.9%
Centroid-so: 0.168 arcsec [0.22σ]
OotOffset-rm: 1.145 arcsec [1.85σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-rm: 1.122 arcsec [1.83σ]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 0.00 [0/3]

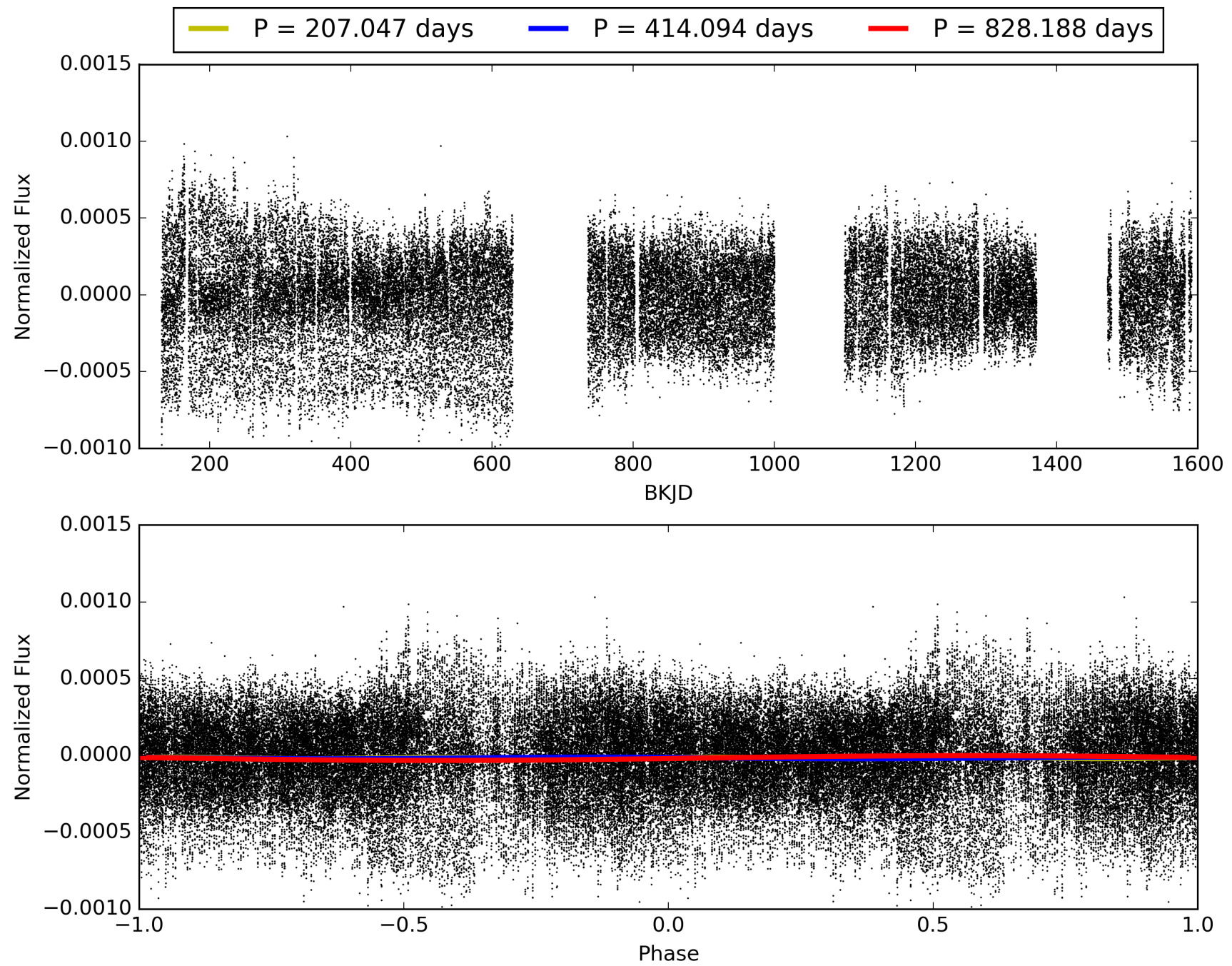
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:51:04 Z

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

TCE 010552700-04, PDC Light Curves

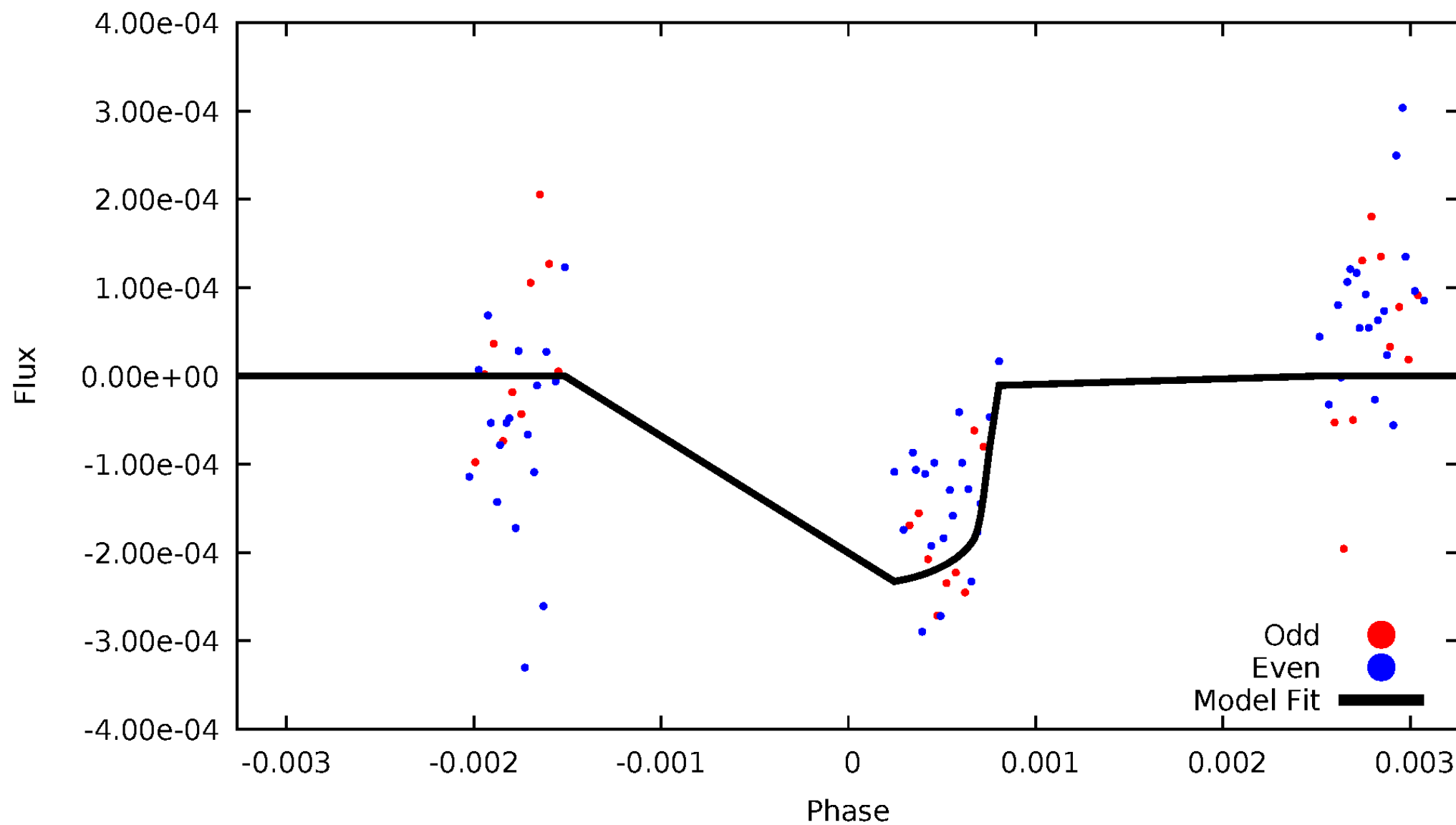


TCE 010552700-04



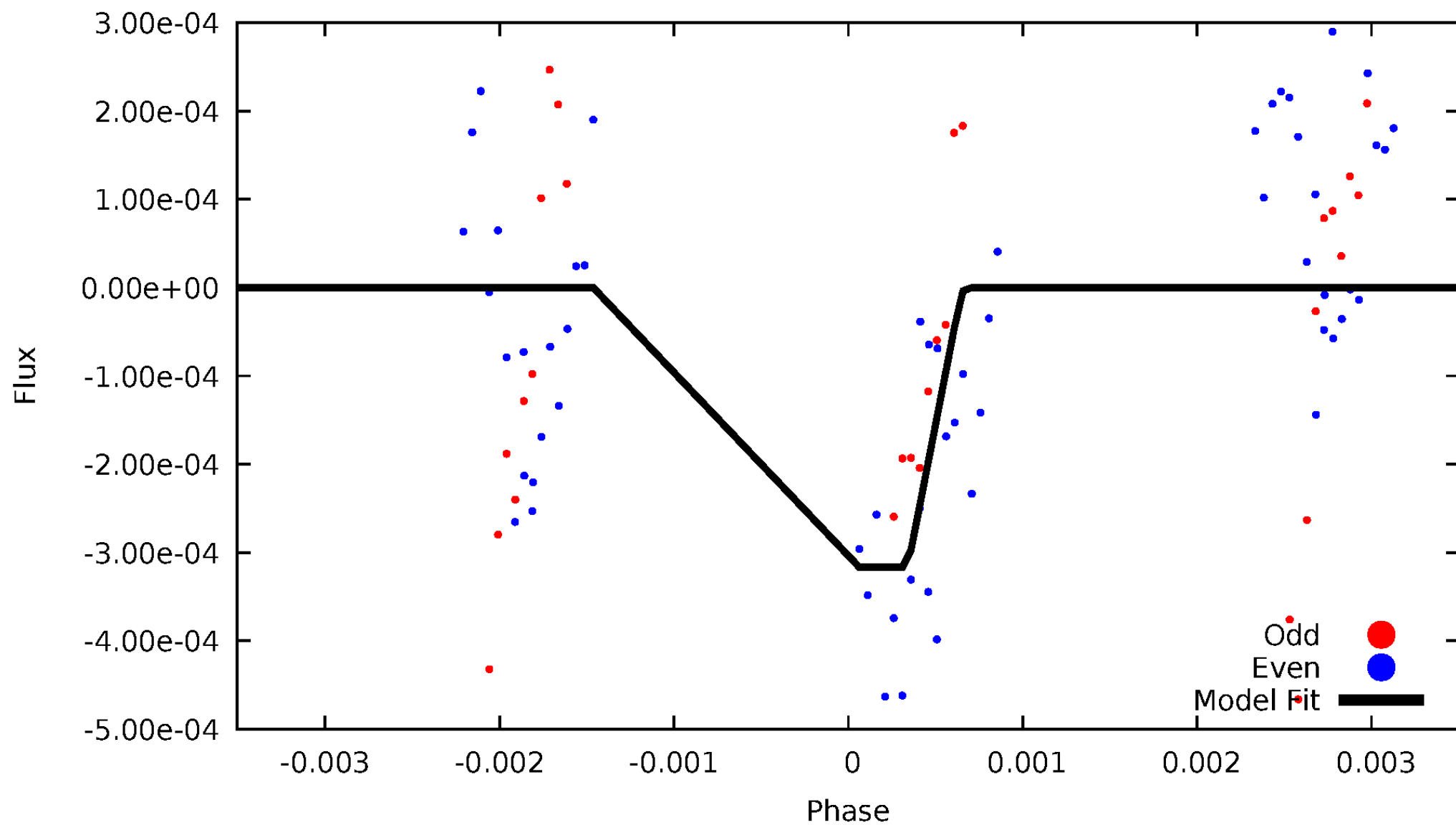
DV Odd/Even

TCE 010552700-04



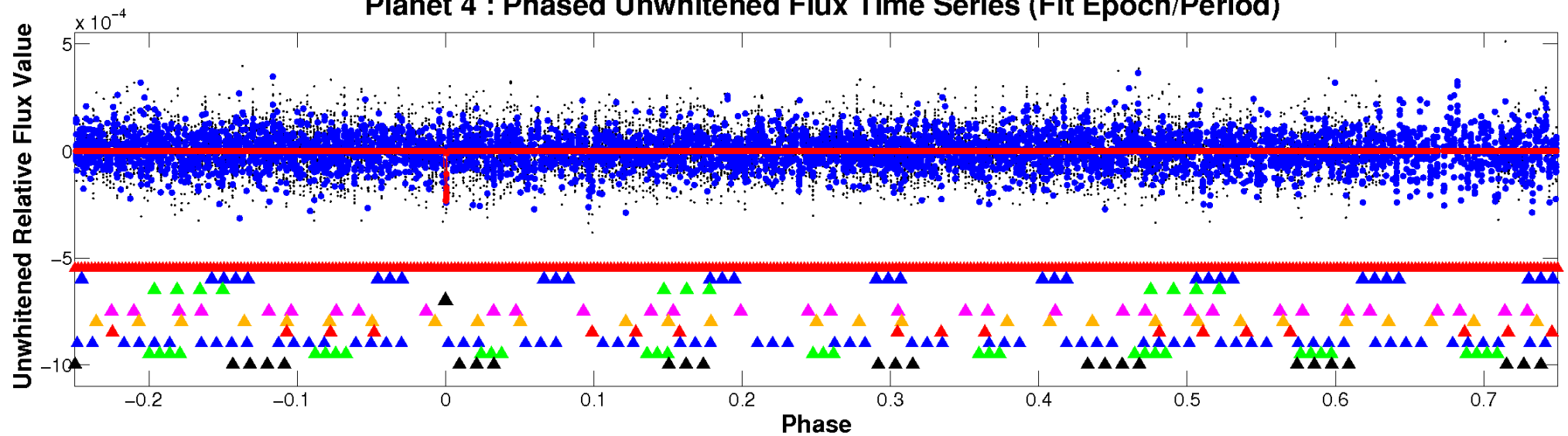
ALT Odd/Even

TCE 010552700-04

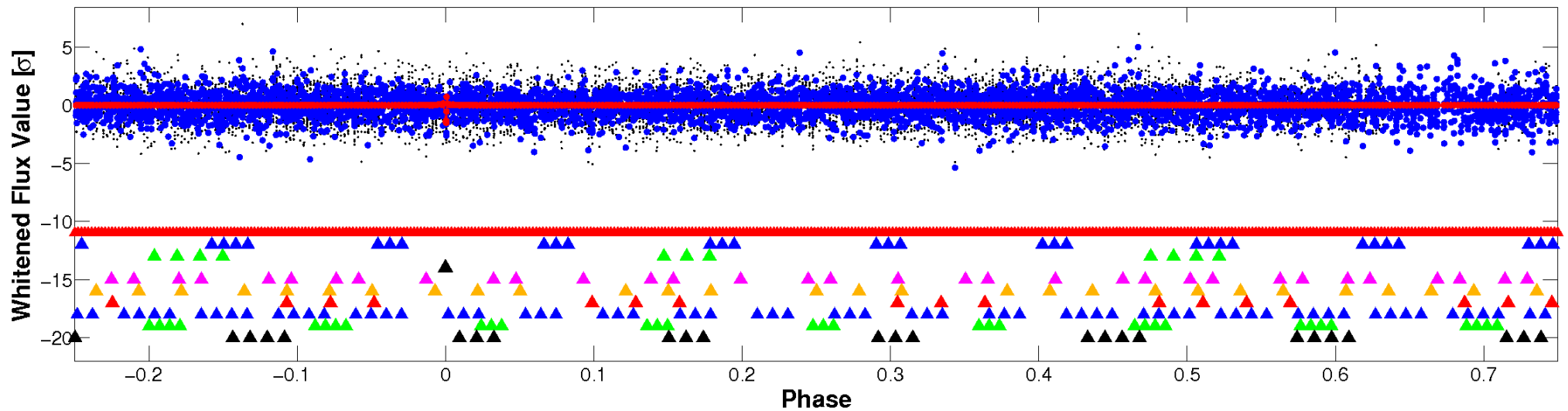


Non-Whitened Vs. Whitened Light Curve

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

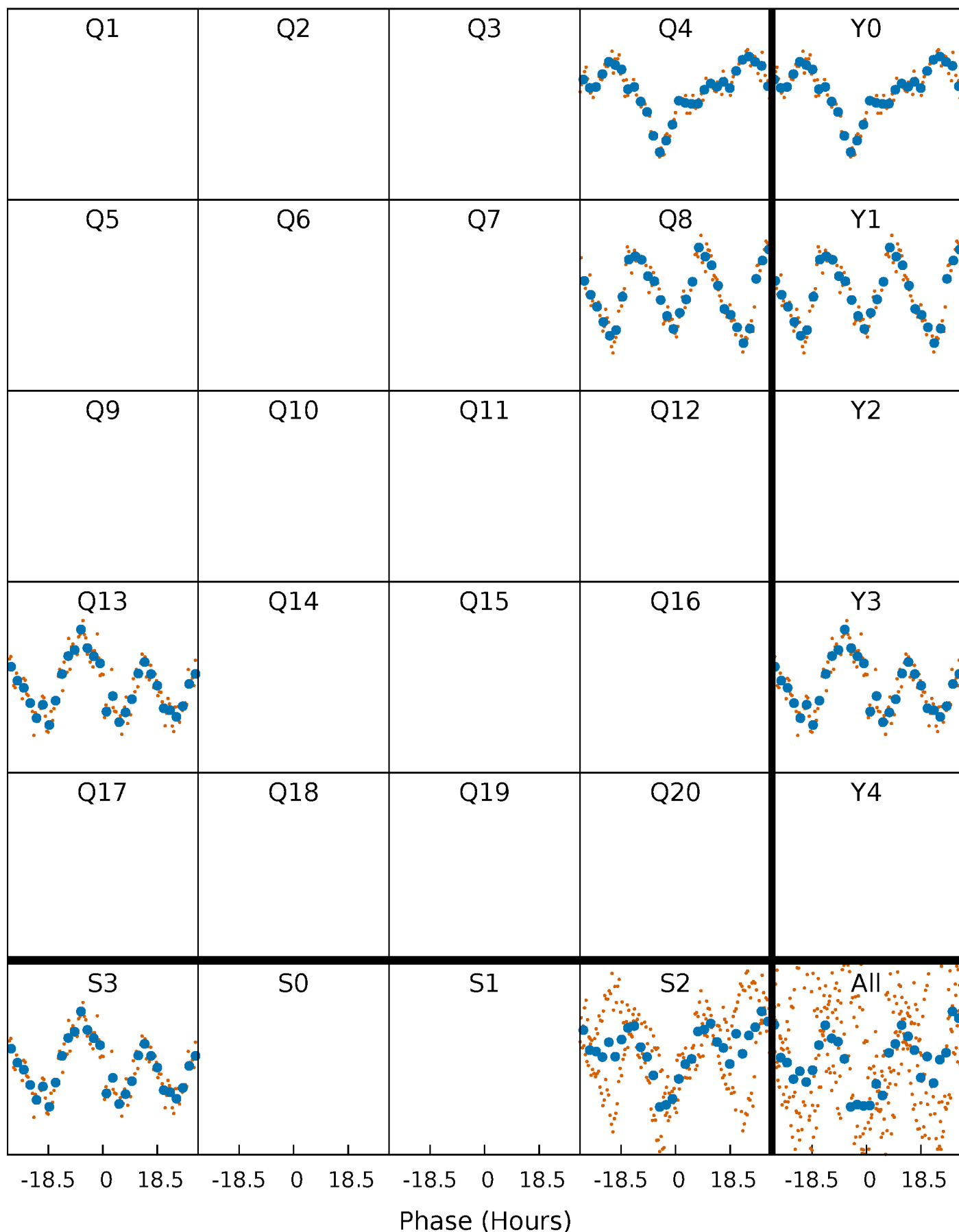


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



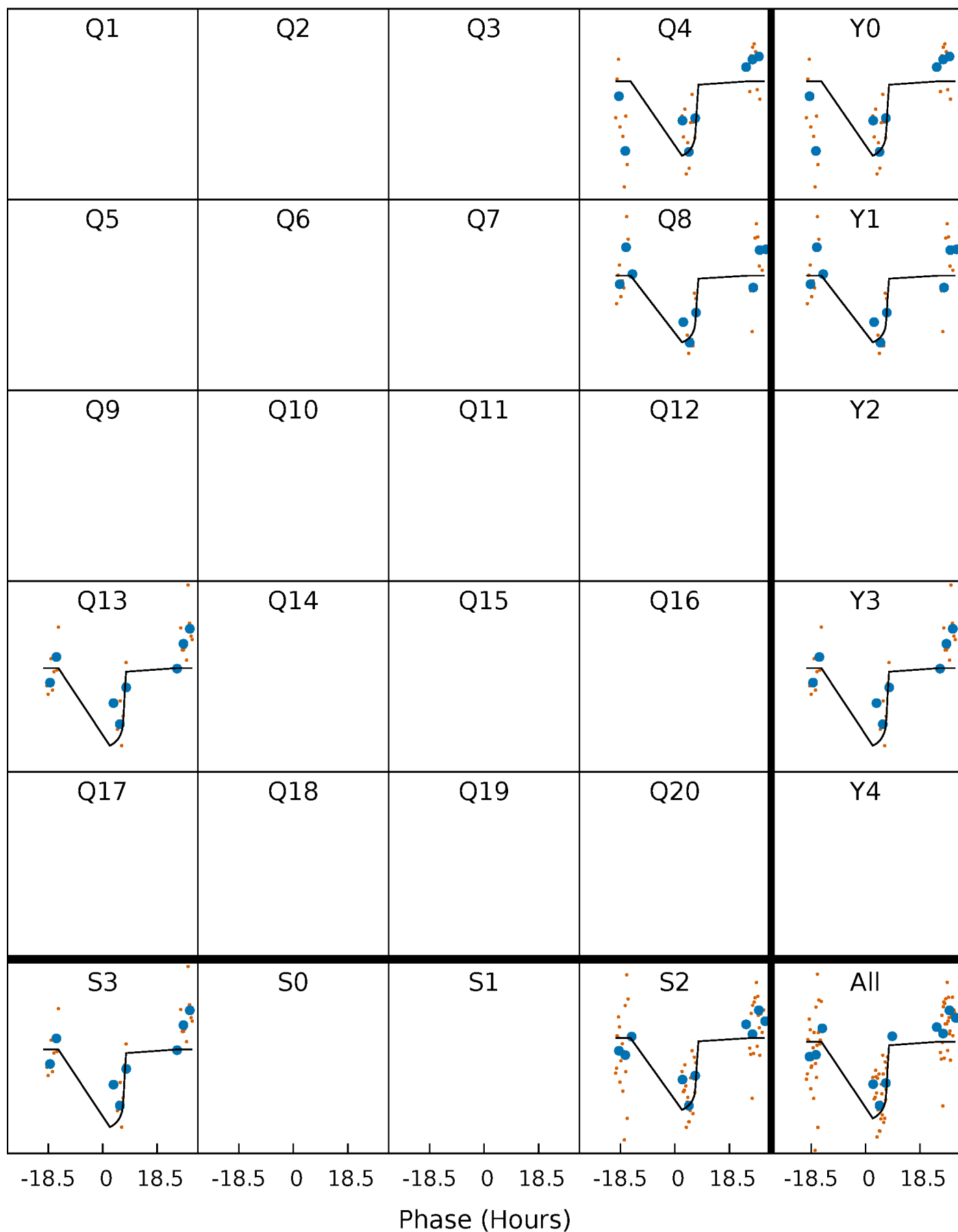
PDC Quarter-Phased Transit Curves

TCE 010552700-04 $P=414.093817$ Days $T_0=367.252579$ (BKJD)



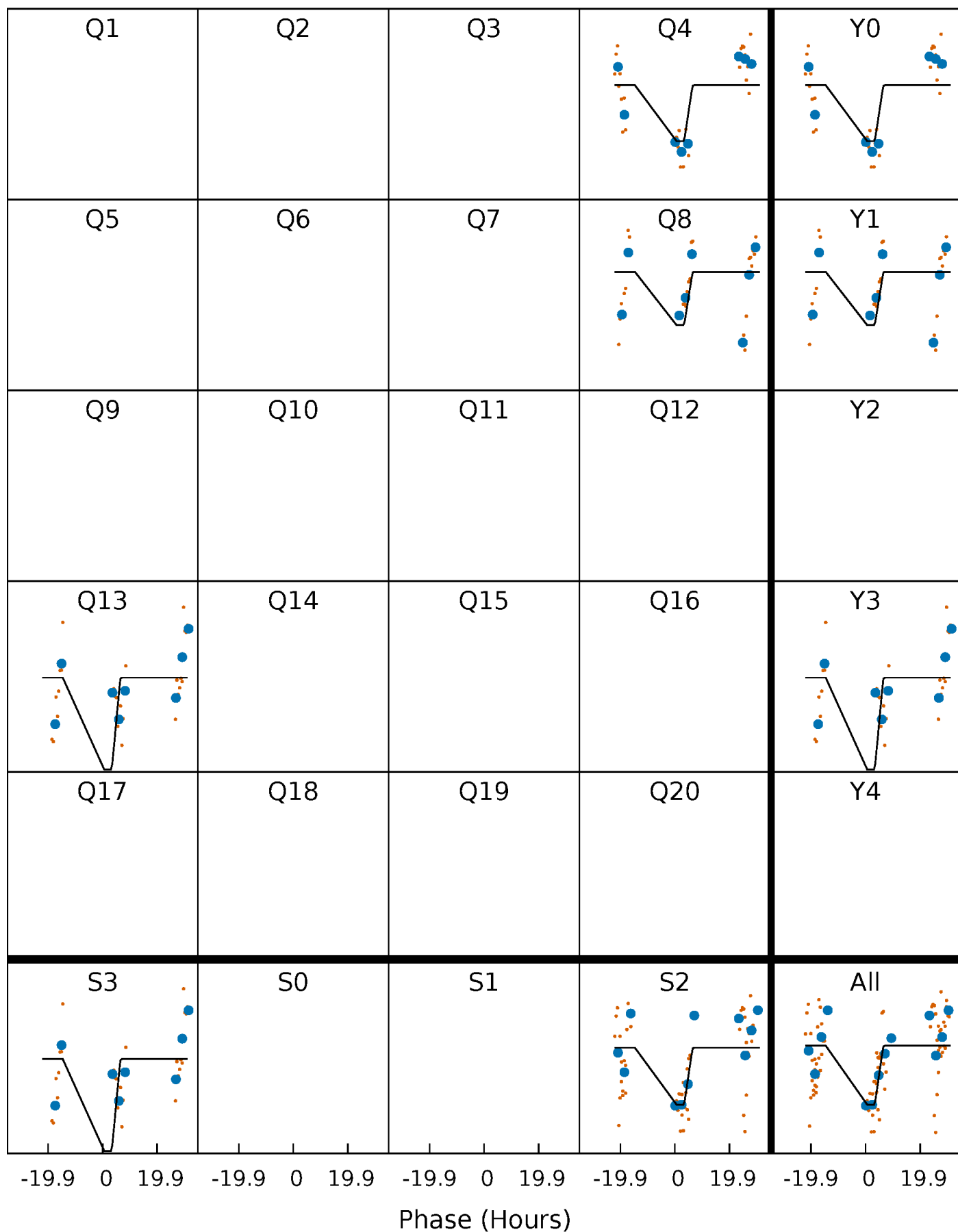
DV Quarter-Phased Transit Curves

TCE 010552700-04 P=414.093817 Days $T_0=367.252579$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

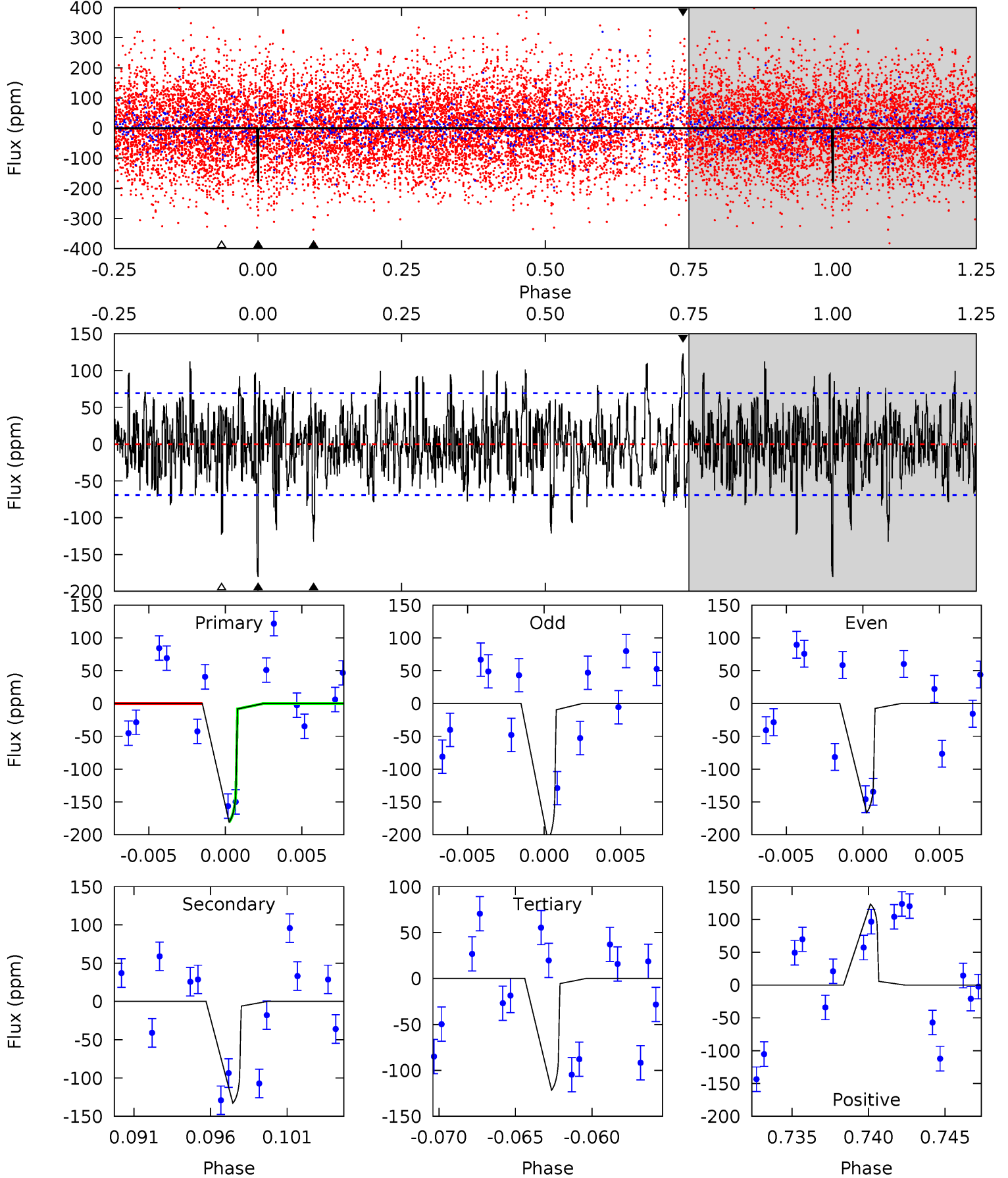
TCE 010552700-04 $P=414.045226$ Days $T_0=367.328497$ (BKJD)



DV Model-Shift Uniqueness Test

010552700-04, P = 414.093817 Days, E = 367.252579 Days

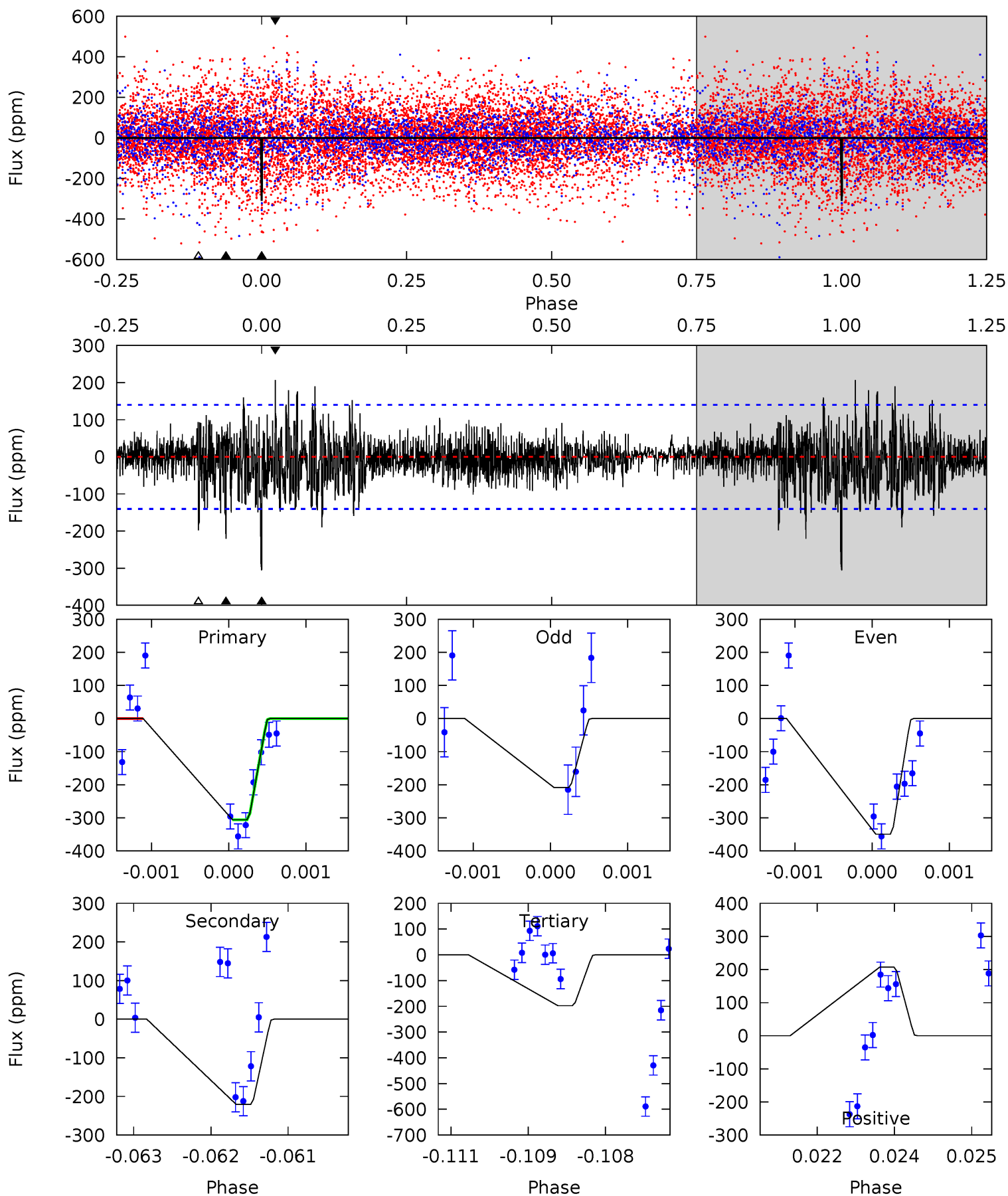
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.4	9.87	9.04	9.17	5.16	2.80	2.53	4.41	4.28	0.84	0.70	1.49	1.04	0.41	0



Alt Model-Shift Uniqueness Test

010552700-04, P = 414.045226 Days, E = 367.328497 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.8	8.51	7.62	7.98	5.40	3.21	1.71	4.18	3.81	0.89	0.53	2.50	1.16	0.40	0



Stellar Parameters For KIC 010552700

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6875^{+164}_{-226}	$3.798^{+0.259}_{-0.111}$	$0.200^{+0.200}_{-0.300}$	$2.856^{+0.503}_{-0.935}$	$1.868^{+0.180}_{-0.361}$	$0.113^{+0.194}_{-0.039}$
	+2%/-3%	+7%/-3%	+100%/-150%	+18%/-33%	+10%/-19%	+172%/-35%
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 010552700-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-133 ± 13	$4.85^{+1.21}_{-1.16}$	611^{+34}_{-51}	5739^{+656}_{-474}	5510^{+3941}_{-1975}
Alt.	-221 ± 26	$5.34^{+1.19}_{-1.16}$	610^{+35}_{-48}	6215^{+641}_{-473}	7618^{+4248}_{-2530}

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 $A_{obs} \gg 1.0$

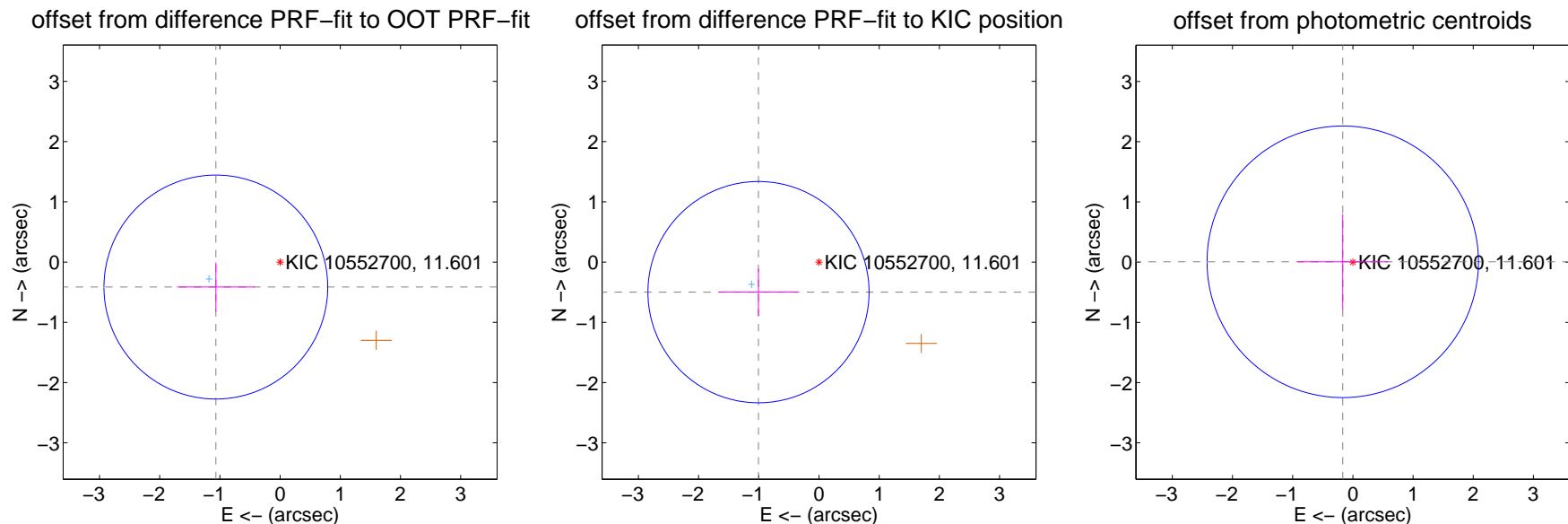
DV Centroid Data

Supplemental centroid analysis for 010552700-04. **Kepler magnitude: 11.60.** Transit SNR 7.34

There are 1 quarters with good PRF difference image offsets

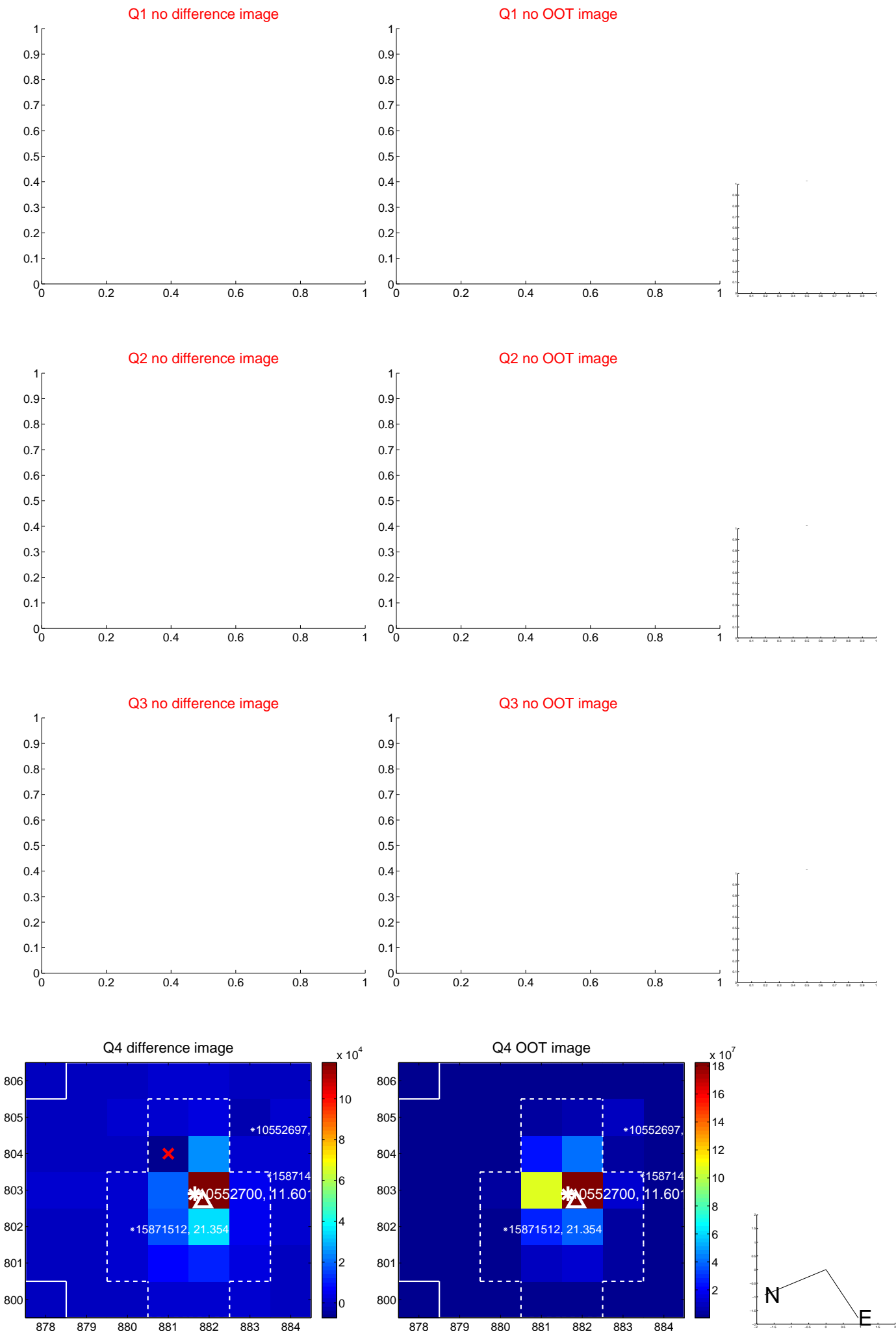
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.145 ± 0.620	1.85	1.068 ± 0.645	-0.414 ± 0.408
PRF-fit source offset from KIC position	1.122 ± 0.612	1.83	1.005 ± 0.655	-0.499 ± 0.394
photometric centroid source offset	0.17 ± 0.75	0.22	0.17 ± 0.75	0.01 ± 0.79



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.

Q5 no difference image



Q5 no OOT image



Q6 no difference image



Q6 no OOT image



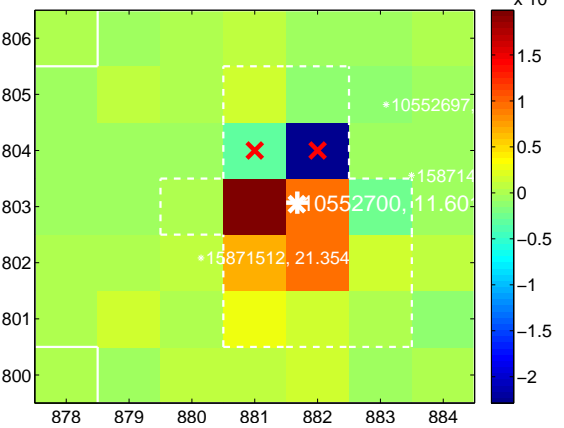
Q7 no difference image



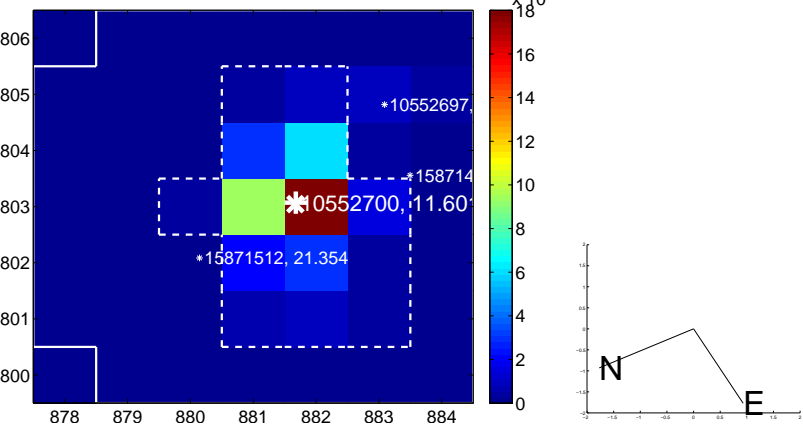
Q7 no OOT image



Q8 difference image. Poor Quality



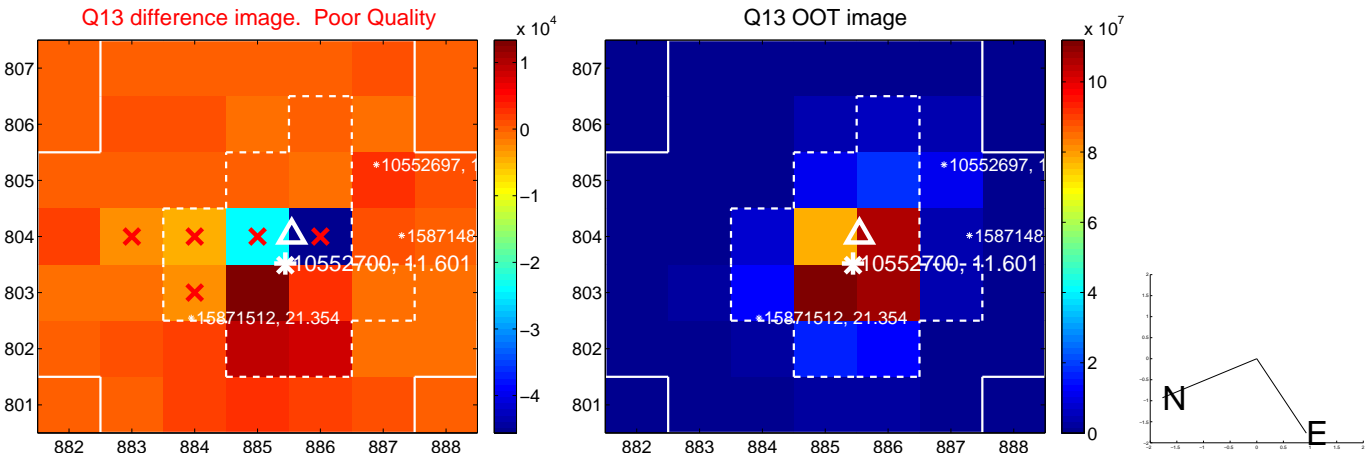
Q8 OOT image



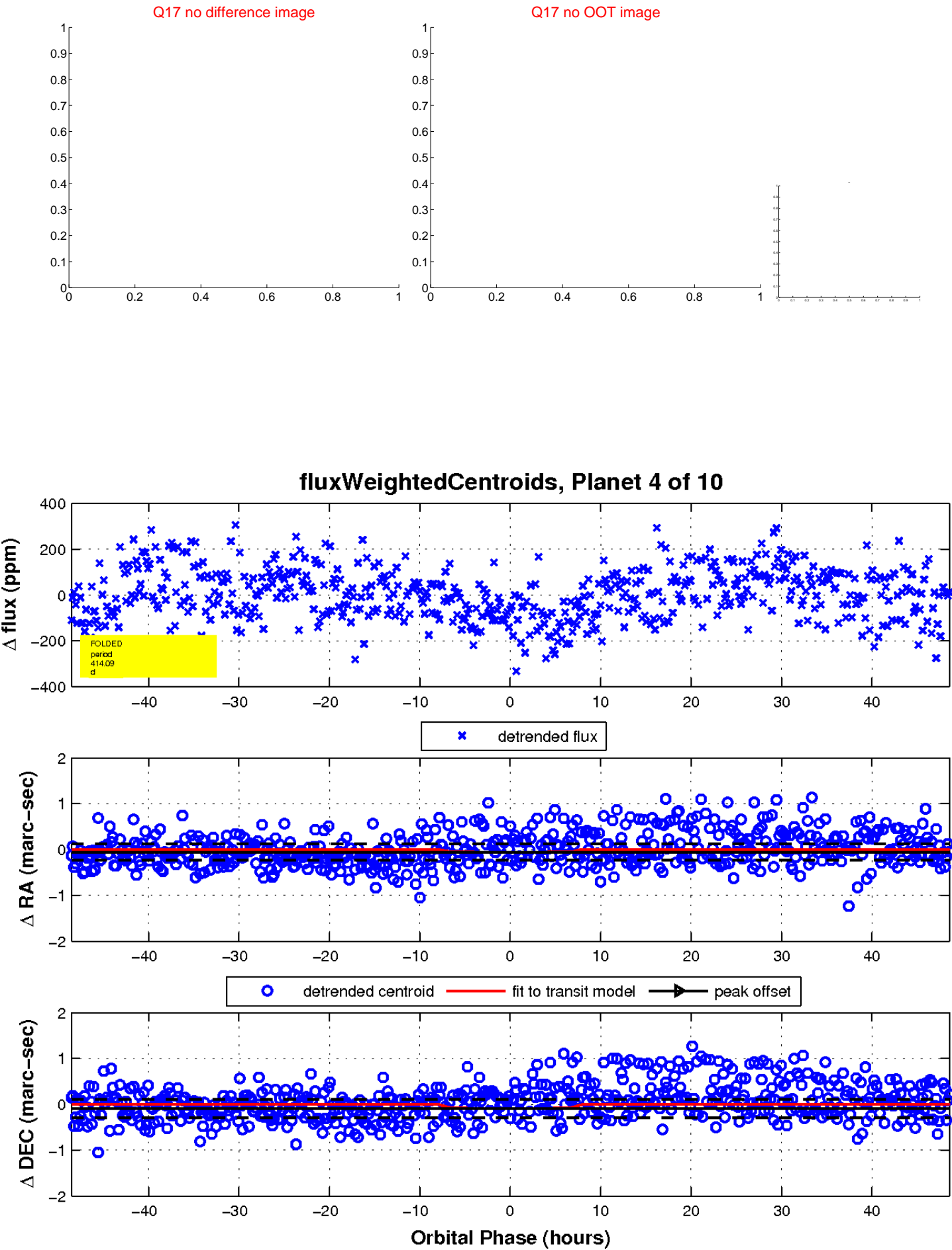
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

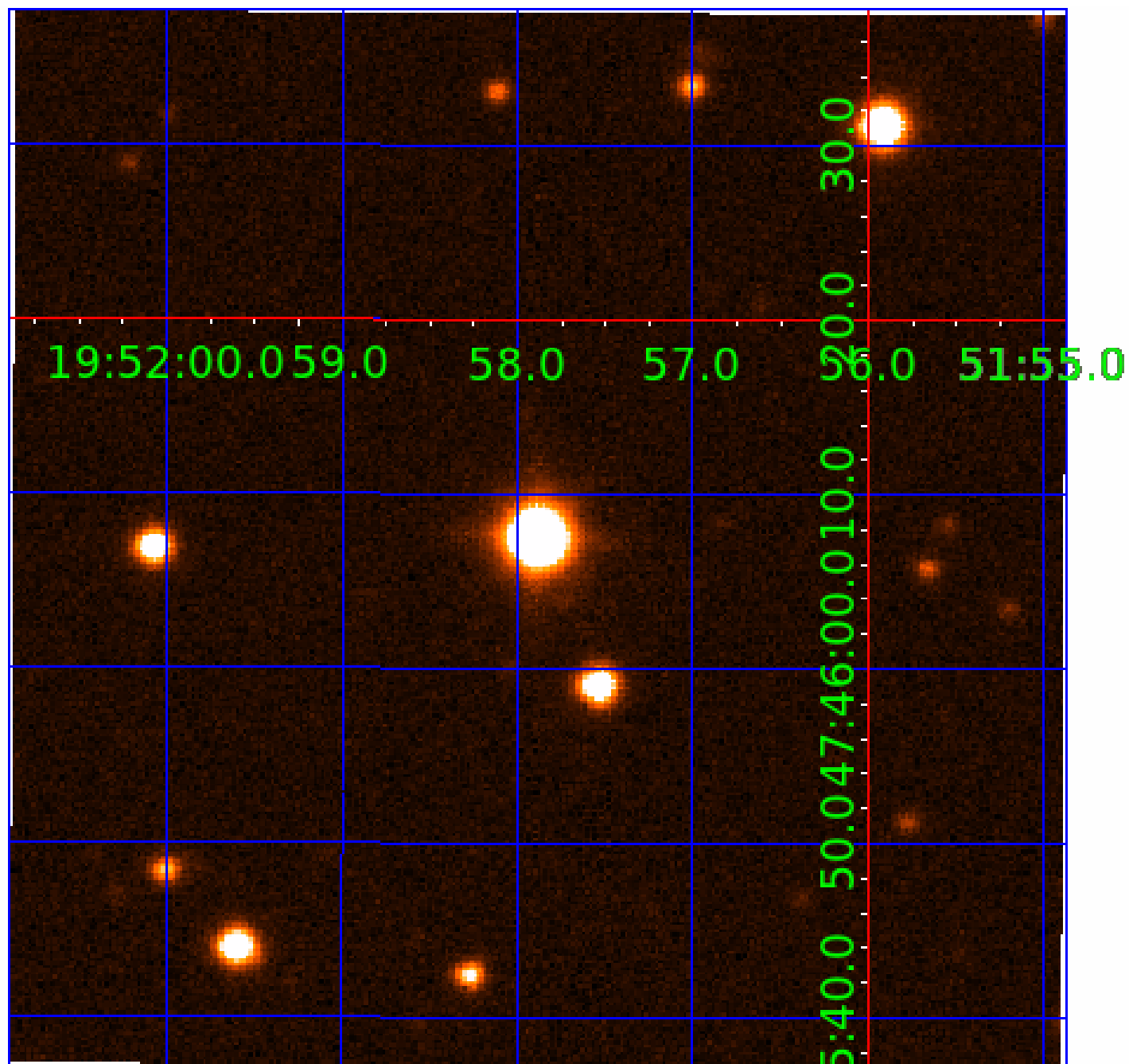


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
010552700-01	OBS	7342.01	0.947637	131.958058	3.9	5.827	10.7	2.8	2.86	6875	0.66	30174.11
010552700-02	OBS	No	46.382972	162.859199	245.5	1.305	9.4	12.1	2.86	6875	5.08	168.53
010552700-03	OBS	No	135.910835	169.141834	206.3	2.598	8.9	7.9	2.86	6875	4.78	40.19
010552700-04	OBS	No	414.093817	367.252579	237.0	16.216	8.1	7.3	2.86	6875	5.10	9.10
010552700-05	OBS	No	43.917309	161.103293	147.1	1.700	8.6	8.6	2.86	6875	3.99	181.26
010552700-06	OBS	No	53.247872	151.349957	91.0	7.054	8.8	6.3	2.86	6875	2.96	140.20
010552700-07	OBS	No	85.256851	152.433220	118.1	3.369	8.6	5.8	2.86	6875	3.38	74.85
010552700-08	OBS	No	21.570584	139.269988	71.5	2.686	8.6	6.6	2.86	6875	2.83	467.74
010552700-09	OBS	No	46.327798	145.577777	109.3	1.551	8.6	5.5	2.86	6875	3.38	168.80
010552700-10	OBS	No	58.468746	146.900902	150.9	2.910	7.9	7.3	2.86	6875	4.03	123.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010552700-01	OBS	FP	0.00	1	0	0	0	LPP_DV
010552700-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
010552700-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
010552700-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
010552700-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV
010552700-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
010552700-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET—HALO_GHOST
010552700-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
010552700-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
010552700-10	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST

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

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

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

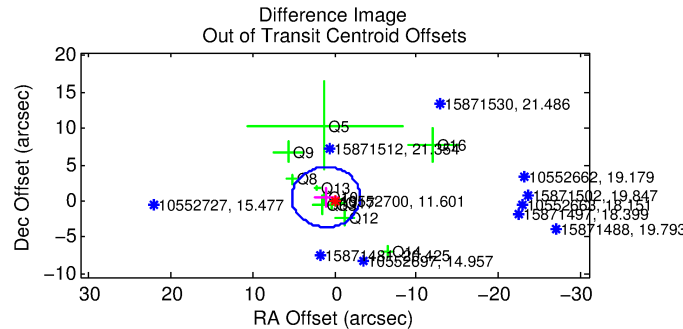
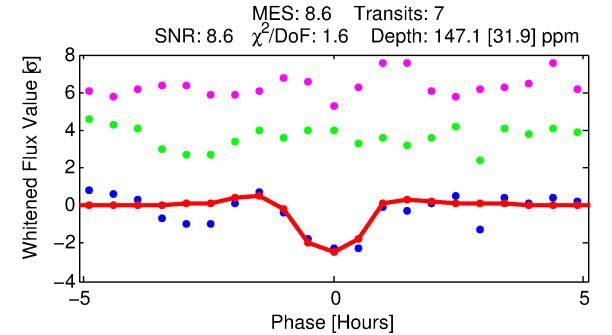
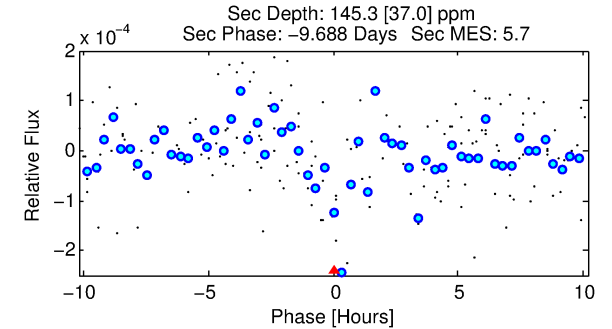
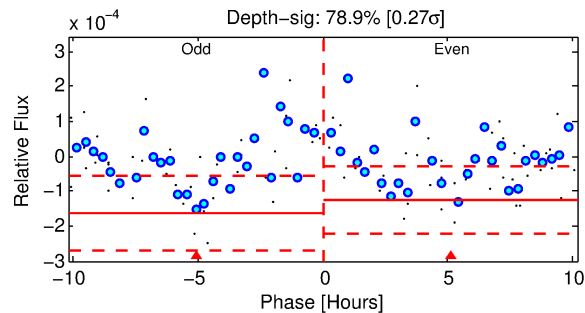
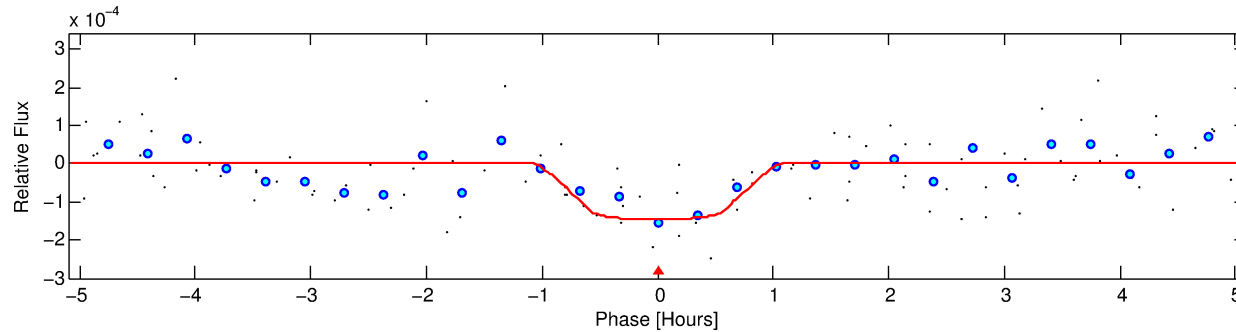
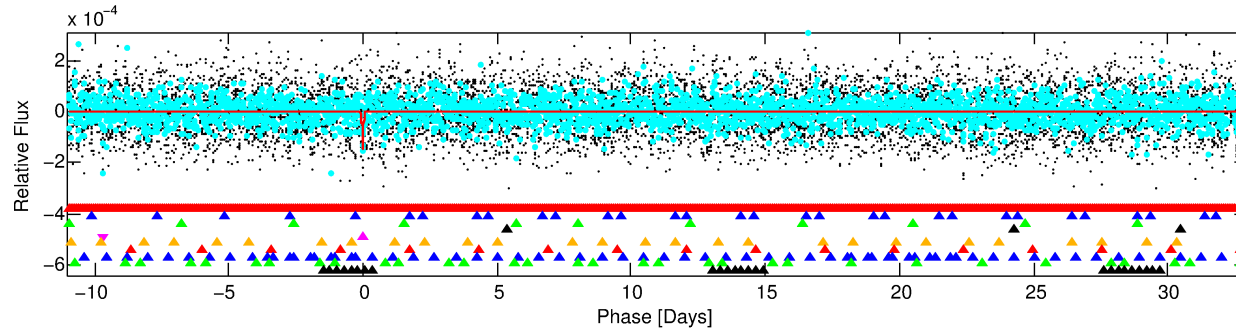
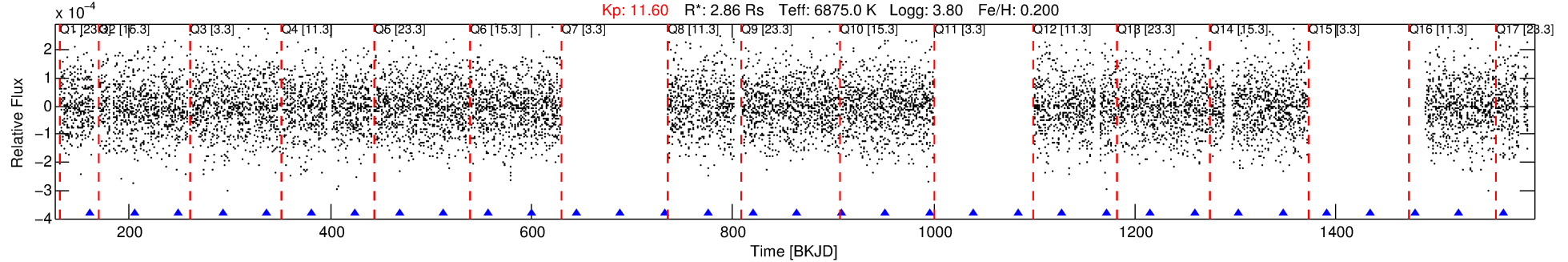
Ephemeris Match Information For 010552700-05

No Significant Match Found

DV One-Page Summary

KIC: 10552700 Candidate: 5 of 10 Period: 43.917 d
KOI: K07342 Corr: No Ephemeris Match

Kp: 11.60 R*: 2.86 Rs Teff: 6875.0 K Logg: 3.80 Fe/H: 0.200



DV Fit Results:

Period = 43.91731 [0.00063] d
Epoch = 161.1033 [0.0095] BKJD
Rp/R* = 0.0128 [0.0241]
a/R* = 97.87 [1090.23]
b = 0.88 [2.82]
Seff = 181.26 [85.60]
Teq = 936 [110] K
Rp = 3.99 [7.62] Re
a = 0.3001 [0.0886] AU
Ag = 451.91 [1716.24] [0.26σ]
Teffp = 6670 [6291] K [0.91σ]

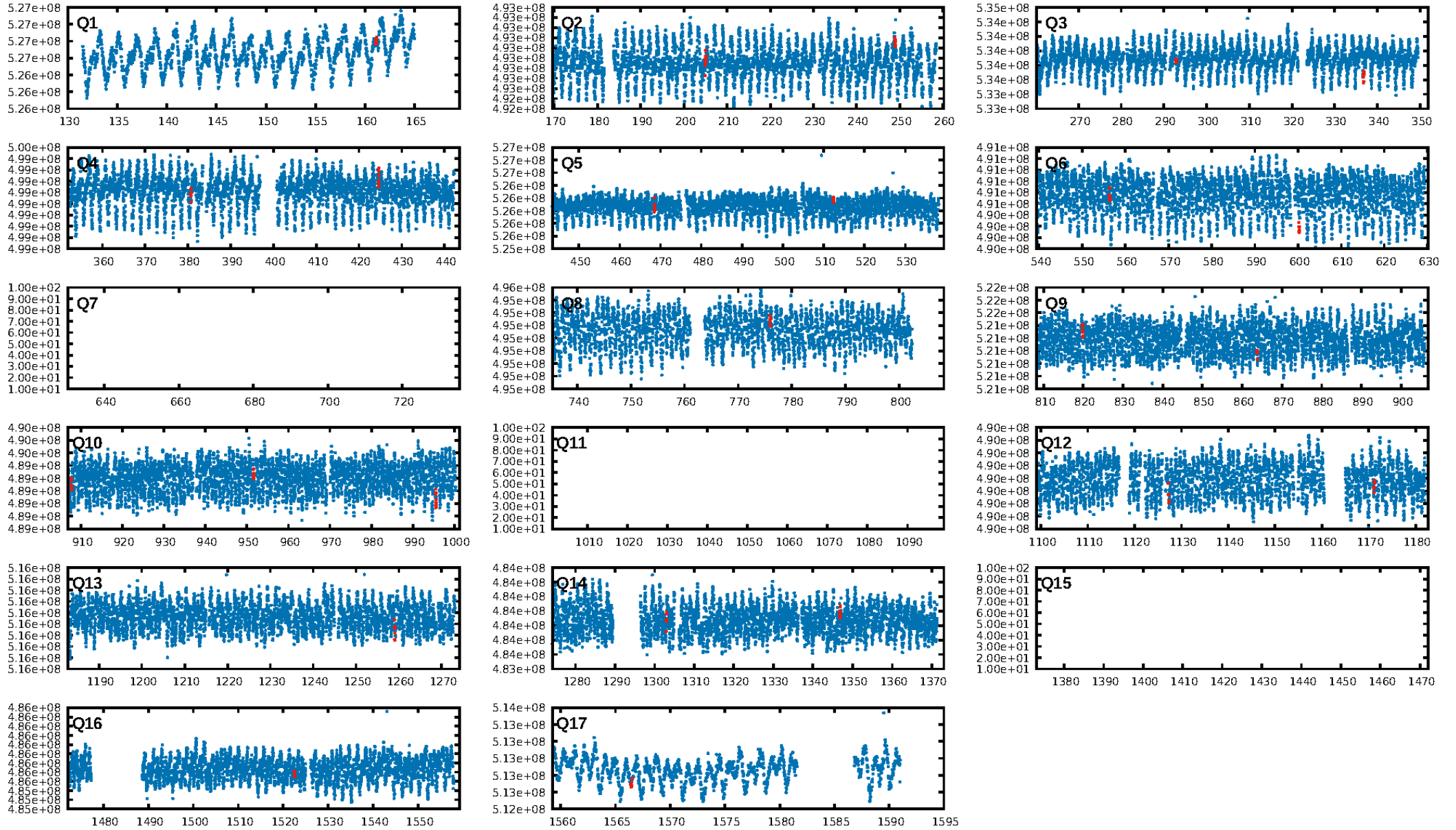
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [168.73σ]
LongPeriod-sig: 100.0% [25.14σ]
ModelChiSquare2-sig: 15.7%
ModelChiSquareGof-sig: 98.5%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: -0.291
Centroid-sig: 9.8%
Centroid-so: 1.235 arcsec [1.56σ]
OotOffset-rm: 1.167 arcsec [0.84σ]
OotOffset-st: 3/1/3/4 [11]
KicOffset-rm: 1.080 arcsec [0.68σ]
KicOffset-st: 3/1/3/4 [11]
DiffImageQuality-fgm: 0.36 [4/11]
DiffImageOverlap-fno: 0.29 [4/14]

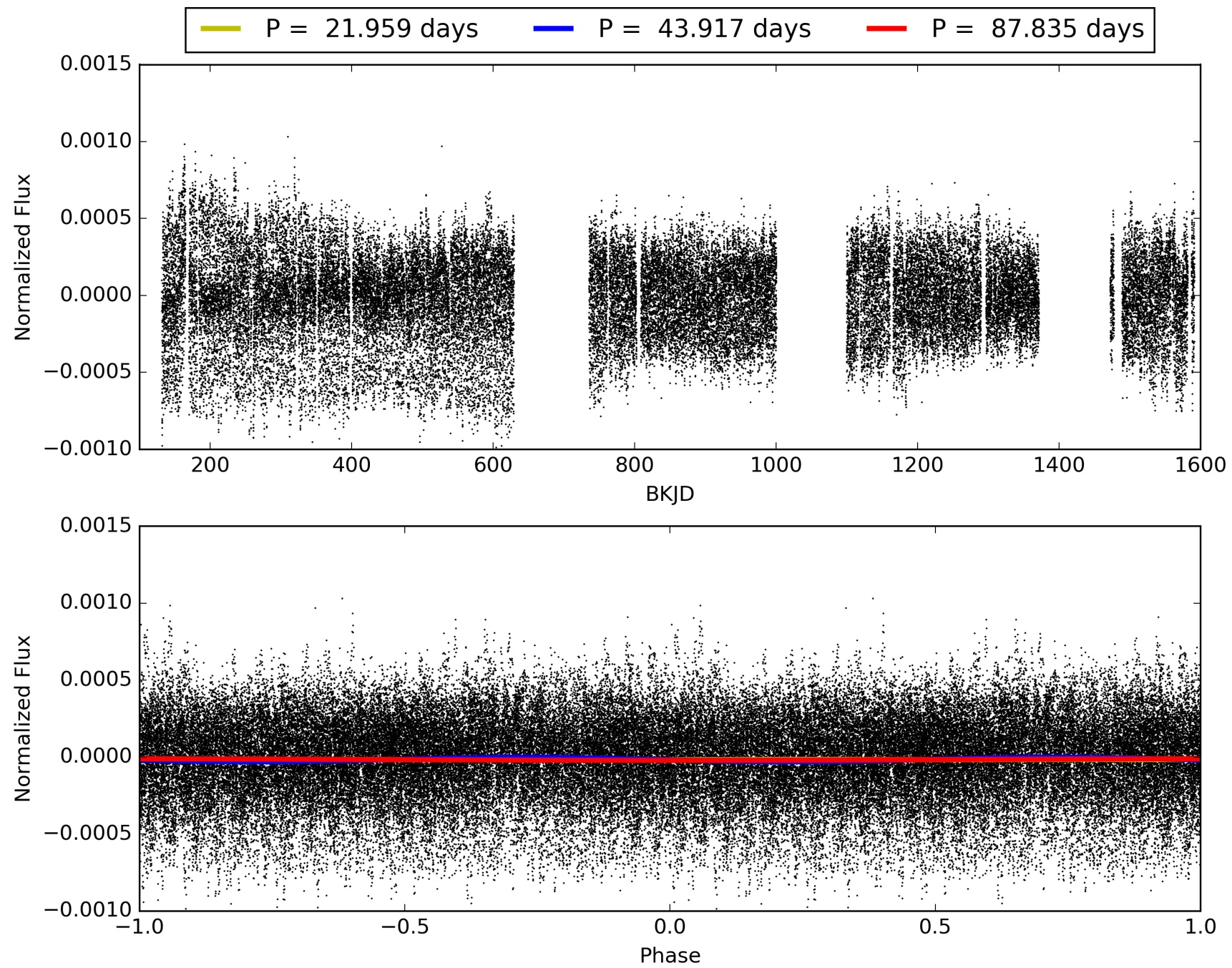
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:51:08 Z

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

TCE 010552700-05, PDC Light Curves

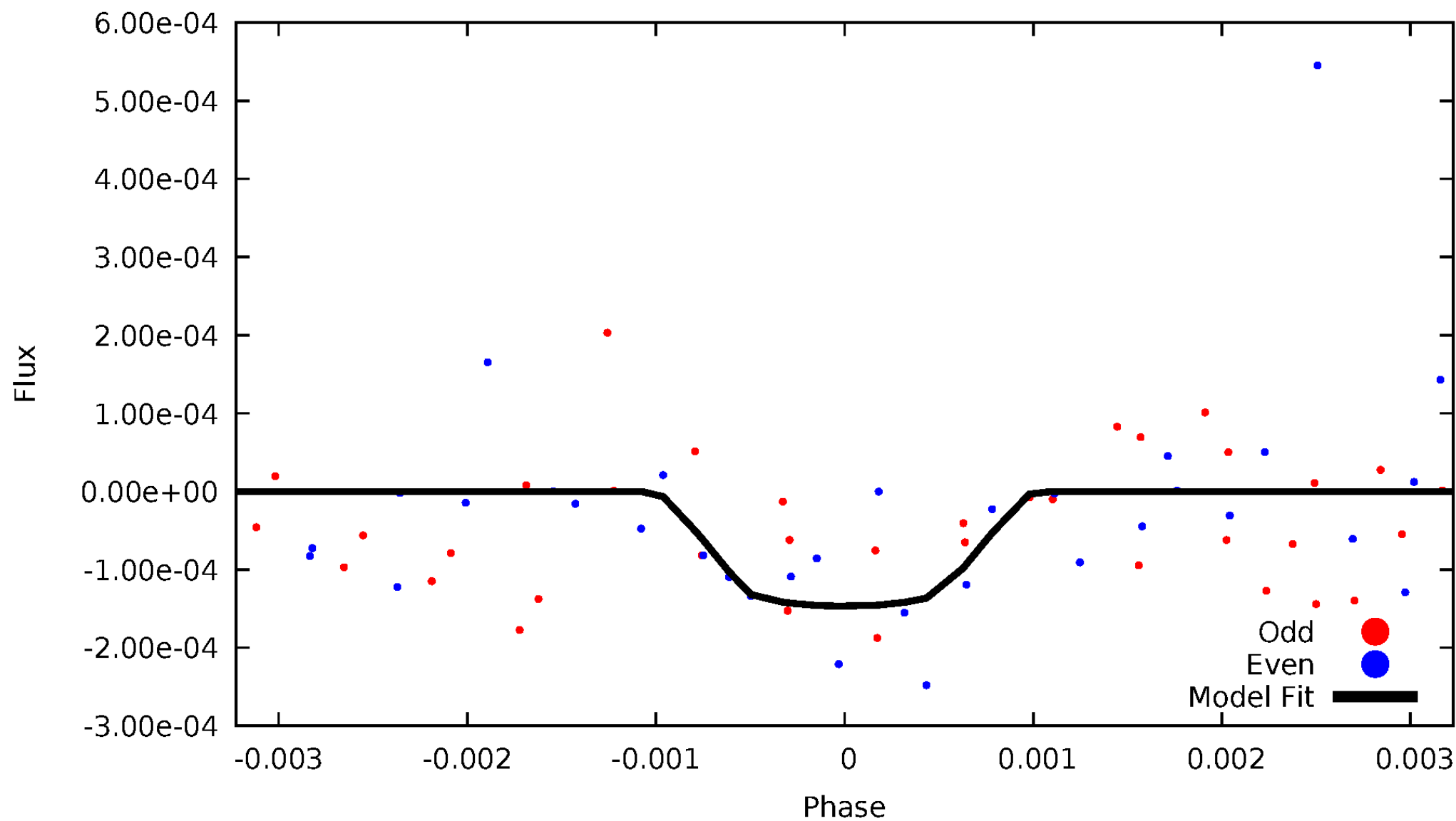


TCE 010552700-05



DV Odd/Even

TCE 010552700-05

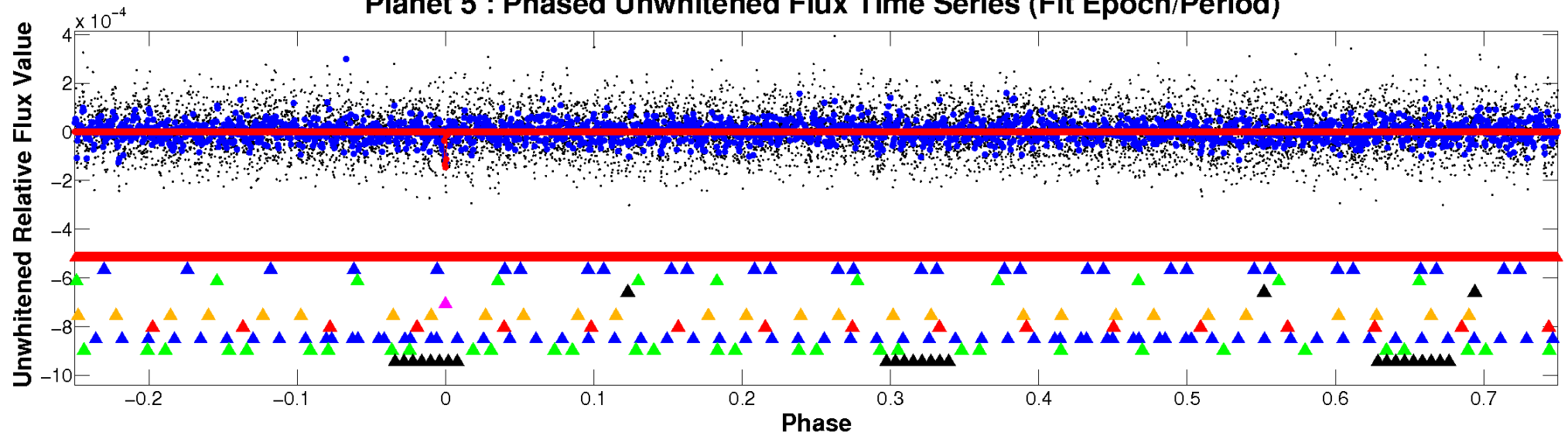


ALT Odd/Even

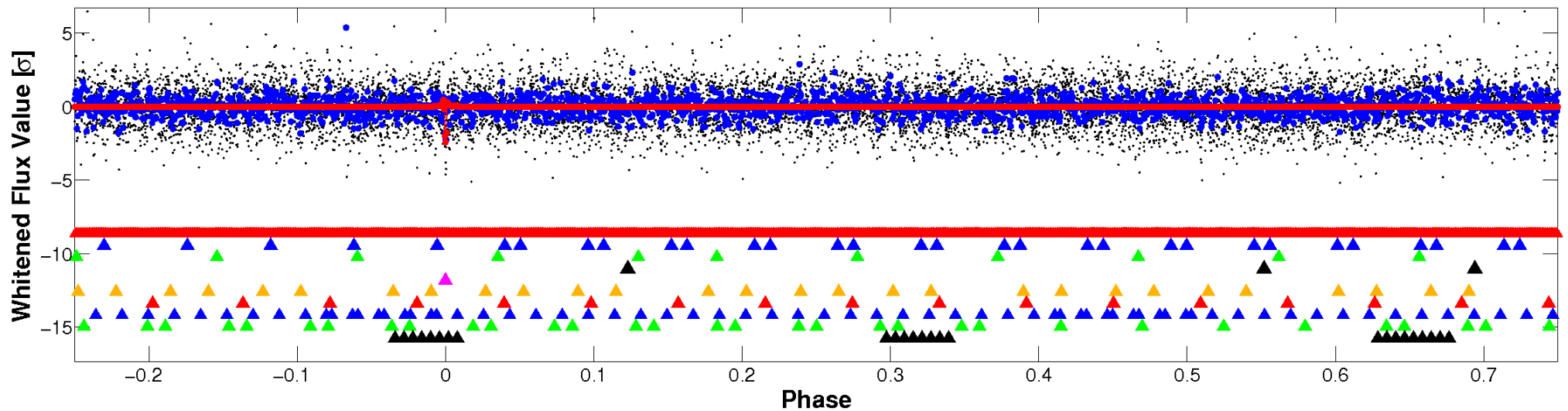
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

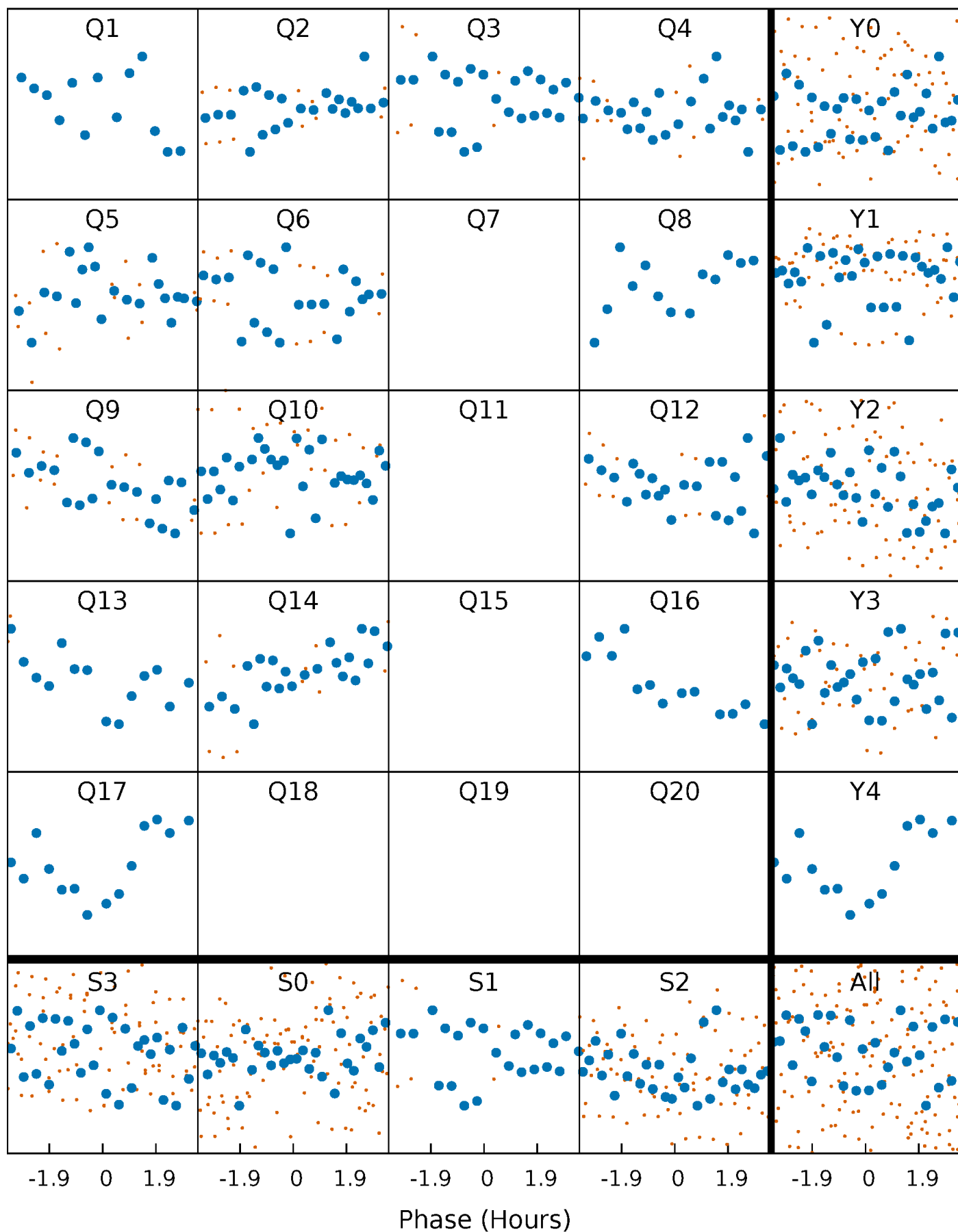


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



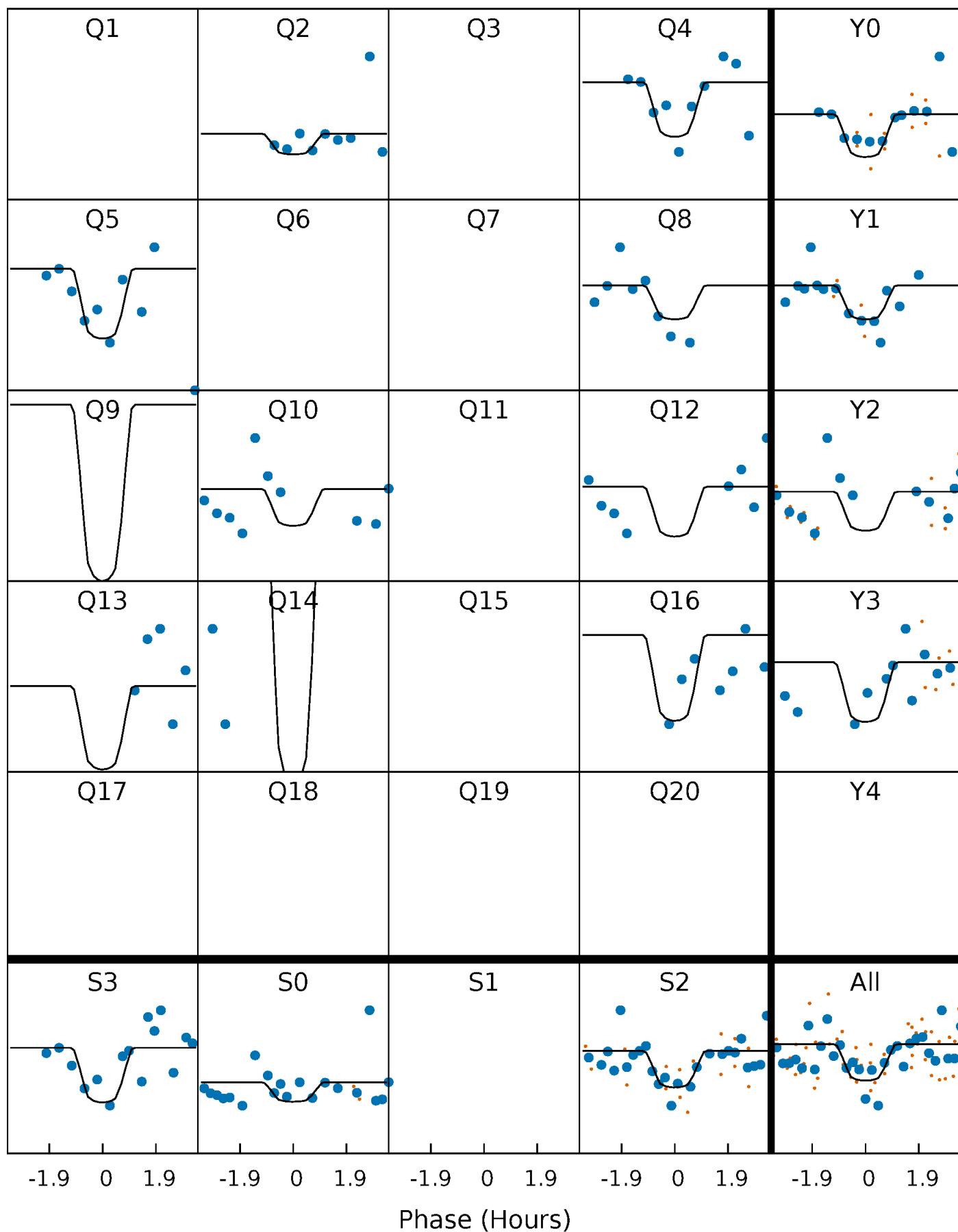
PDC Quarter-Phased Transit Curves

TCE 010552700-05 $P = 43.917309$ Days $T_0 = 161.103293$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 010552700-05 $P = 43.917309$ Days $T_0 = 161.103293$ (BKJD)

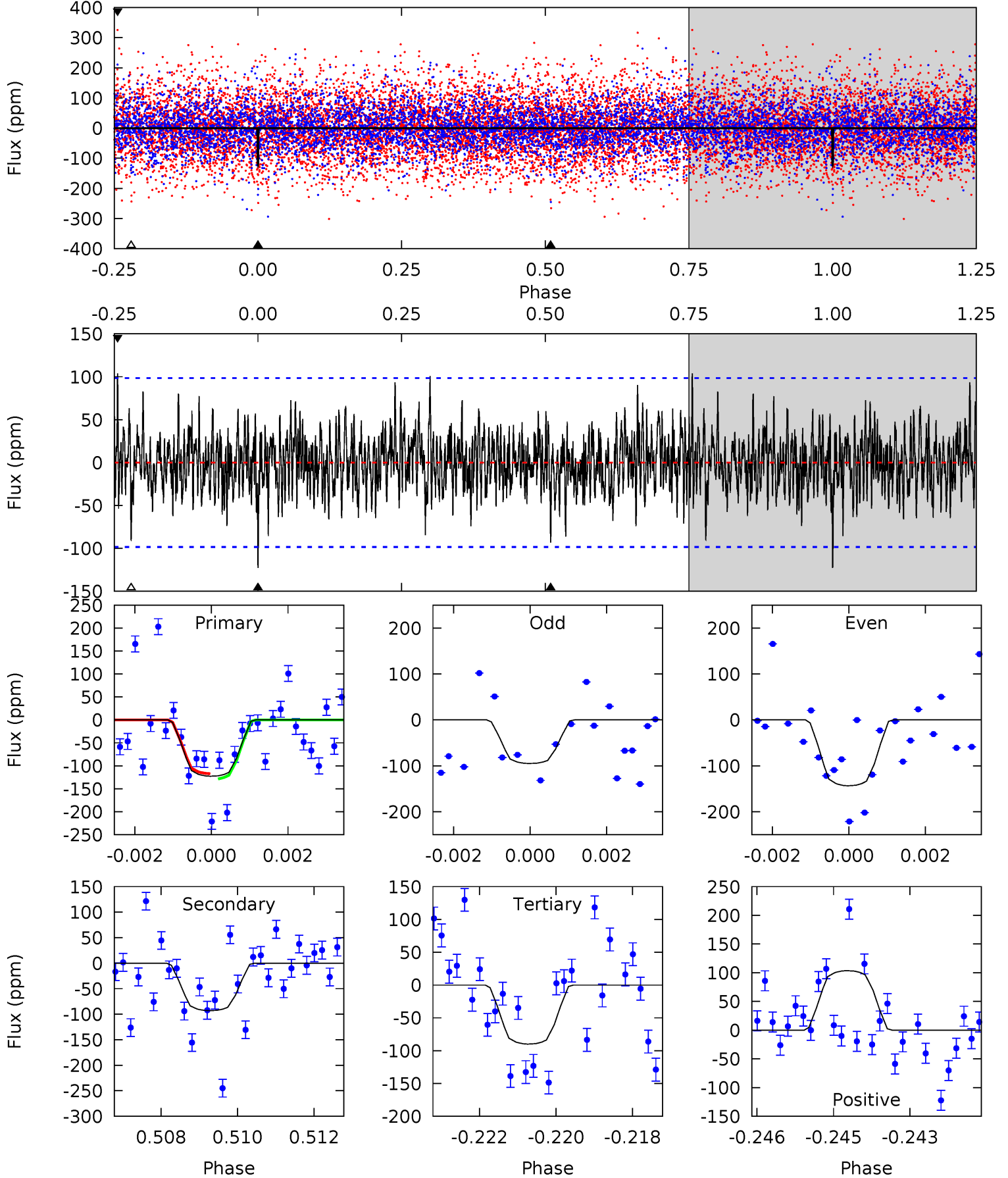


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

010552700-05, P = 43.917309 Days, E = 117.185984 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.66	5.05	4.88	5.62	5.34	3.11	1.52	1.78	1.03	0.17	-0.58	1.31	0.94	0.46	0.30



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 010552700

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6875^{+164}_{-226}	$3.798^{+0.259}_{-0.111}$	$0.200^{+0.200}_{-0.300}$	$2.856^{+0.503}_{-0.935}$	$1.868^{+0.180}_{-0.361}$	$0.113^{+0.194}_{-0.039}$
	+2%/-3%	+7%/-3%	+100%/-150%	+18%/-33%	+10%/-19%	+172%/-35%
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 010552700-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-93 ± 18	$6.01^{+6.38}_{-3.88}$	1285^{+73}_{-94}	4790^{+3480}_{-1094}	125^{+917}_{-97}
Alt.	N/A	N/A	N/A	N/A	N/A

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

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

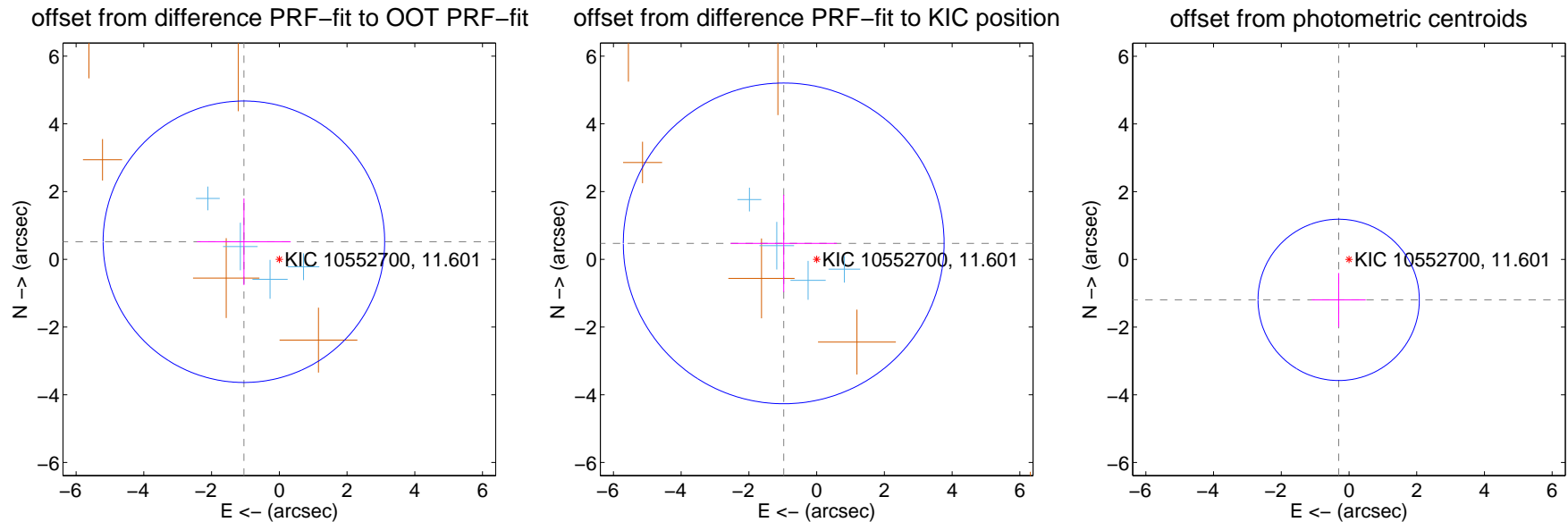
DV Centroid Data

Supplemental centroid analysis for 010552700-05. **Kepler magnitude: 11.60.** Transit SNR 8.57

There are 4 quarters with good PRF difference image offsets

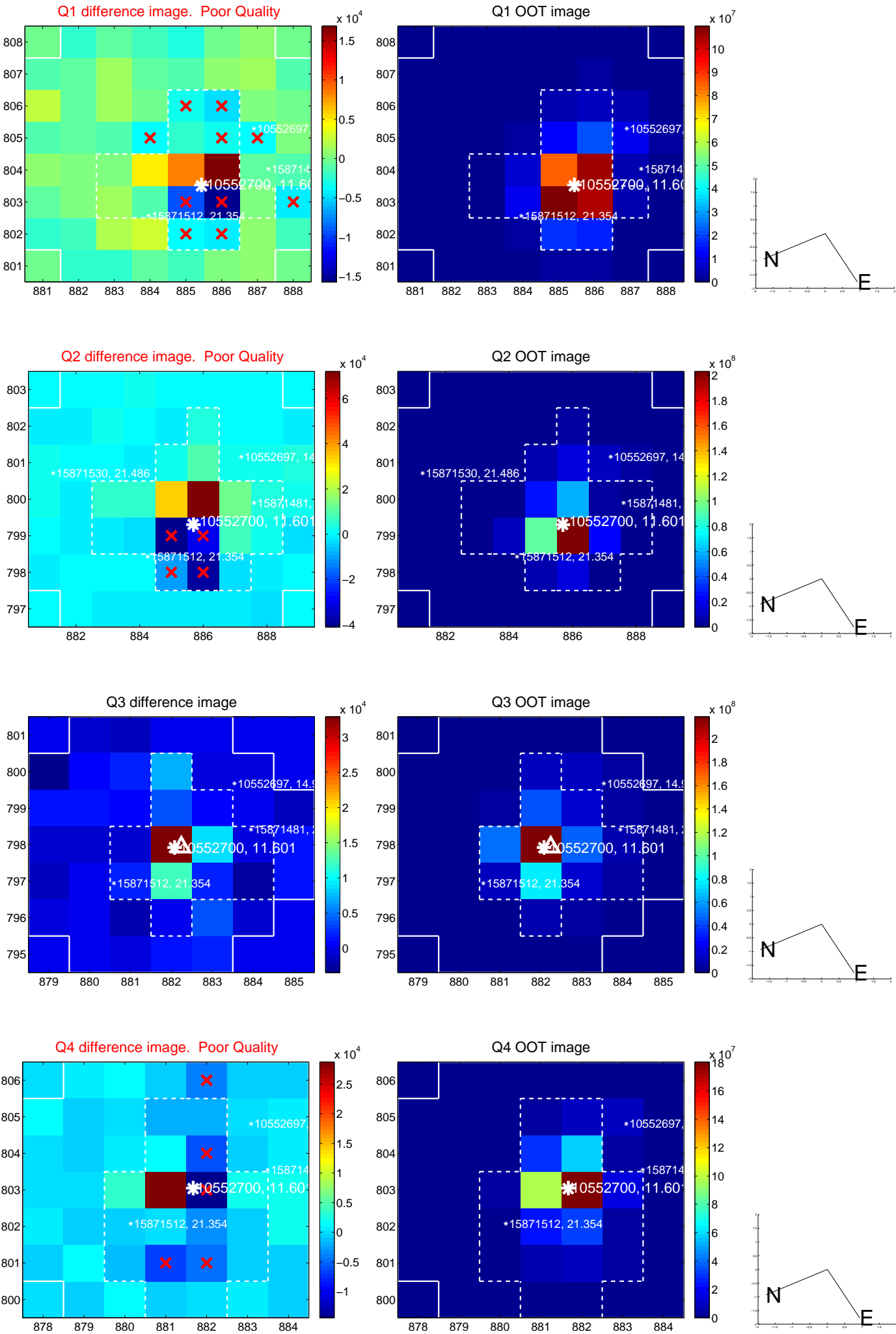
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.167 ± 1.385	0.84	1.046 ± 1.383	0.519 ± 1.279
PRF-fit source offset from KIC position	1.080 ± 1.578	0.68	0.972 ± 1.568	0.470 ± 1.436
photometric centroid source offset	1.23 ± 0.79	1.56	0.31 ± 0.80	-1.20 ± 0.79

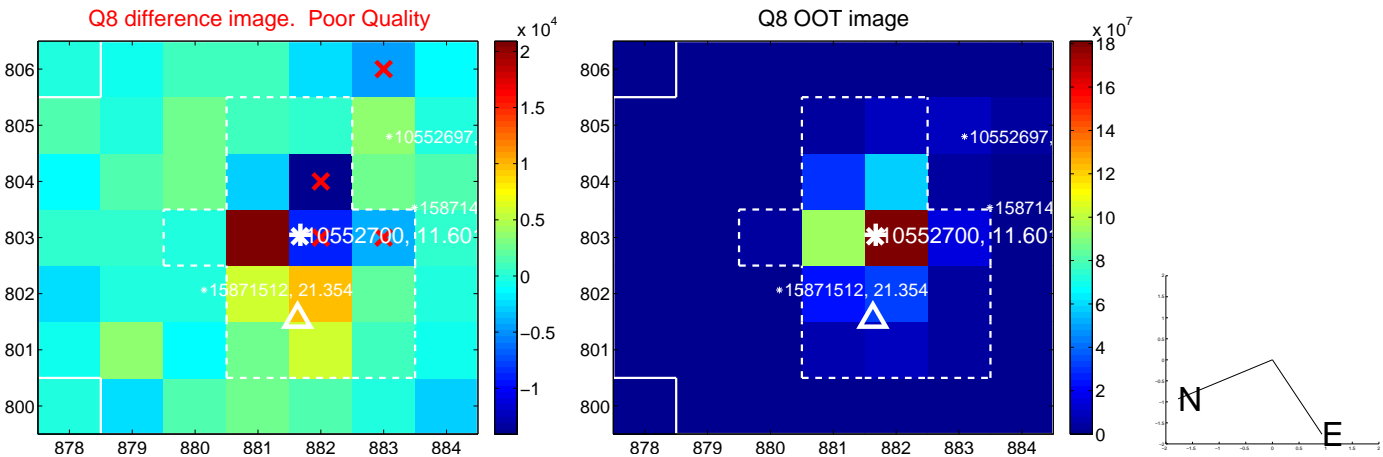
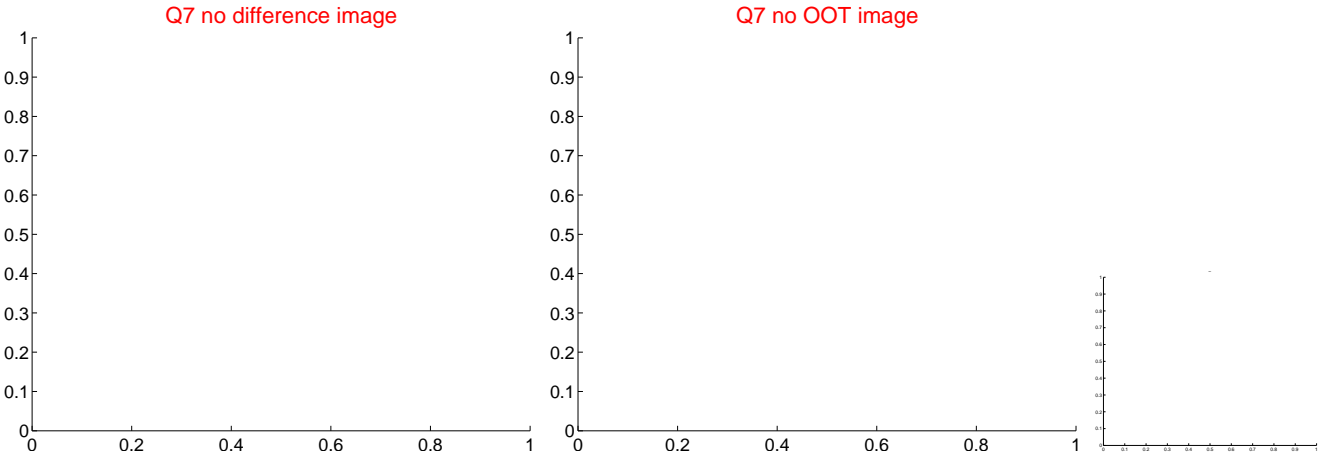
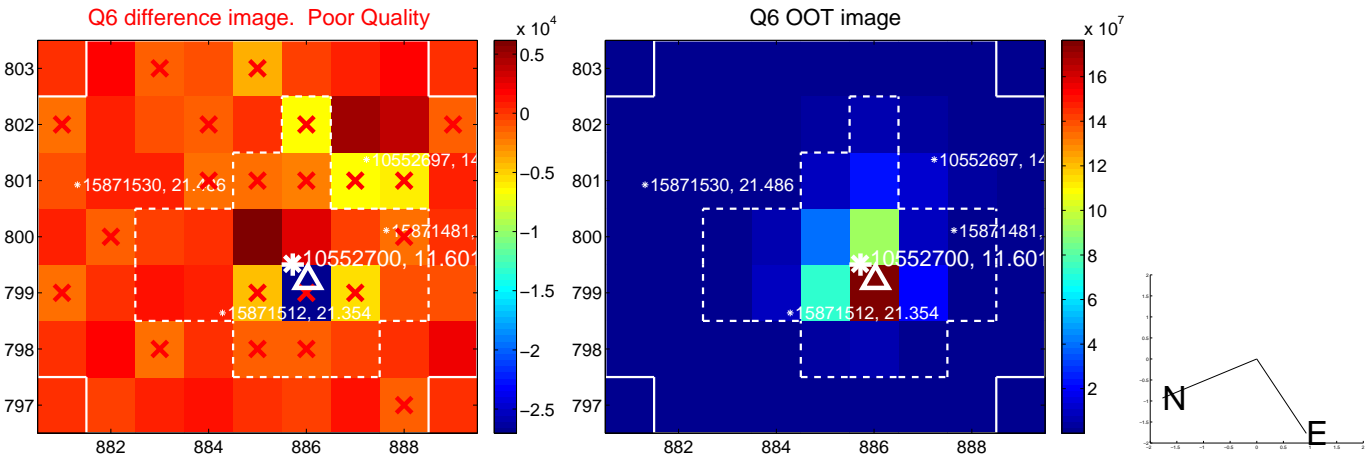
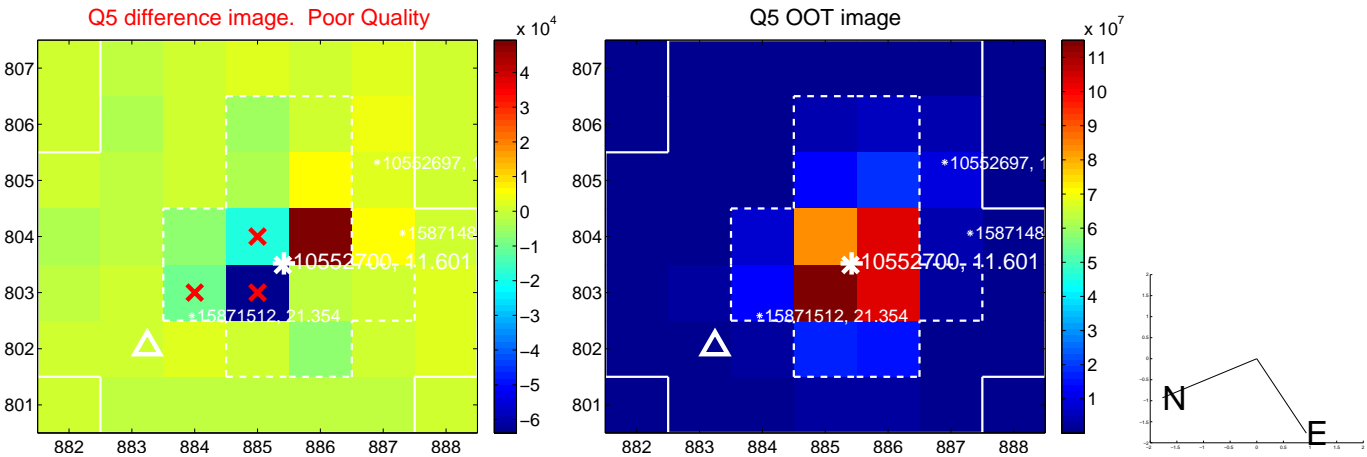


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

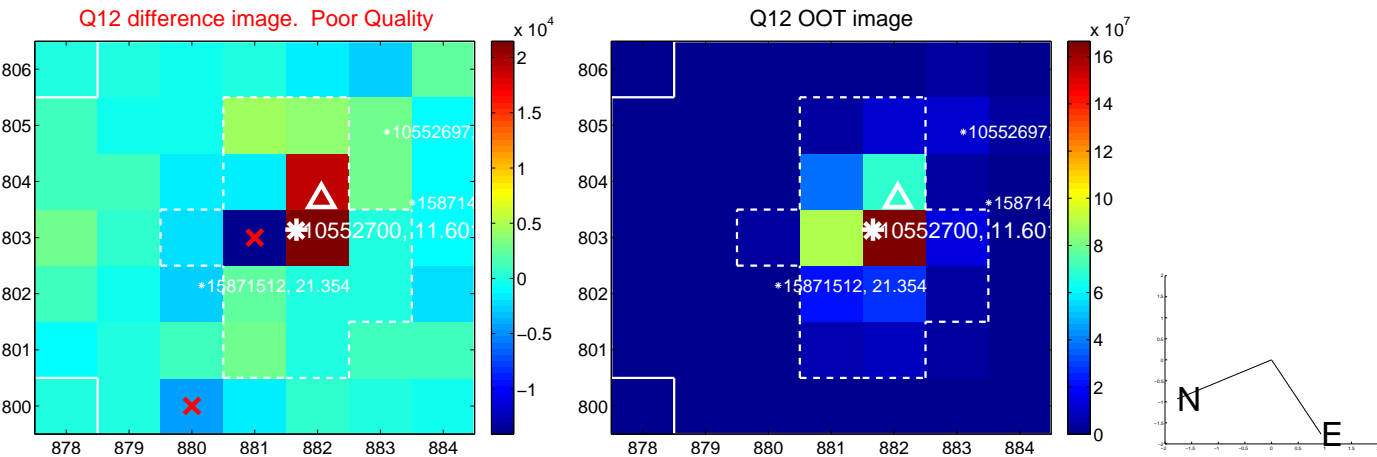
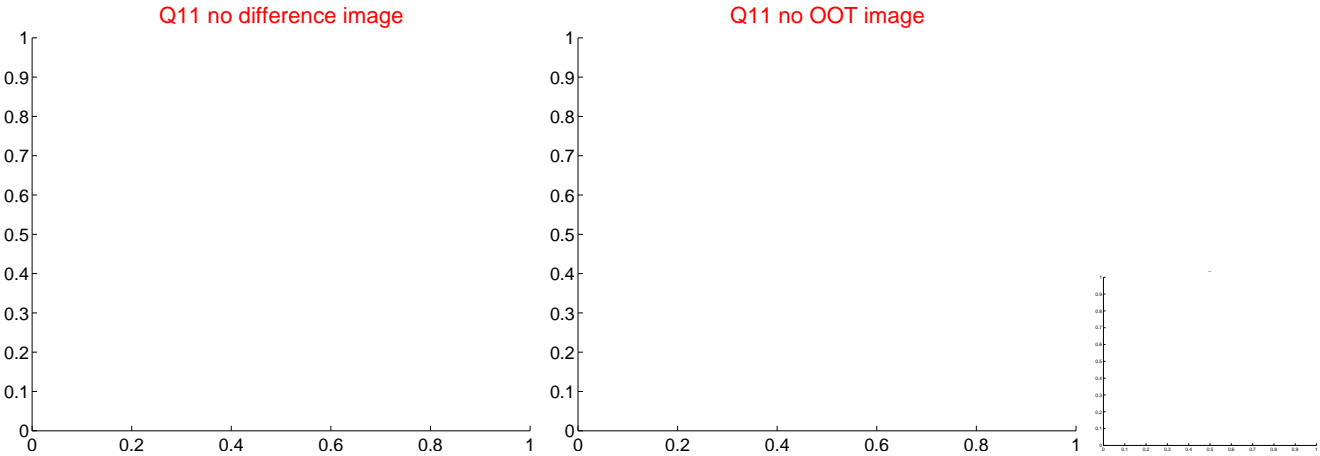
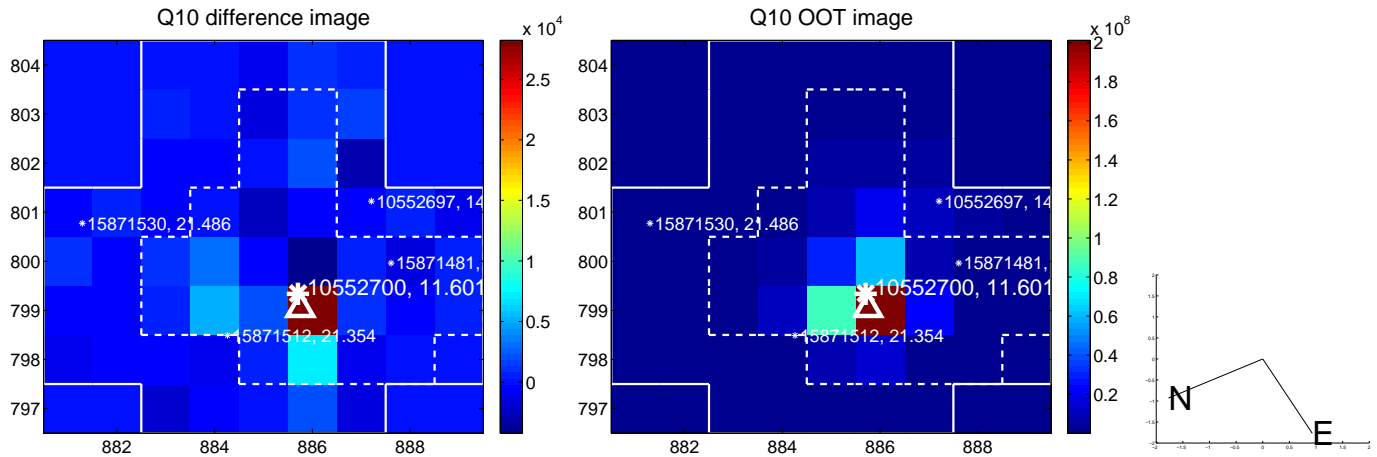
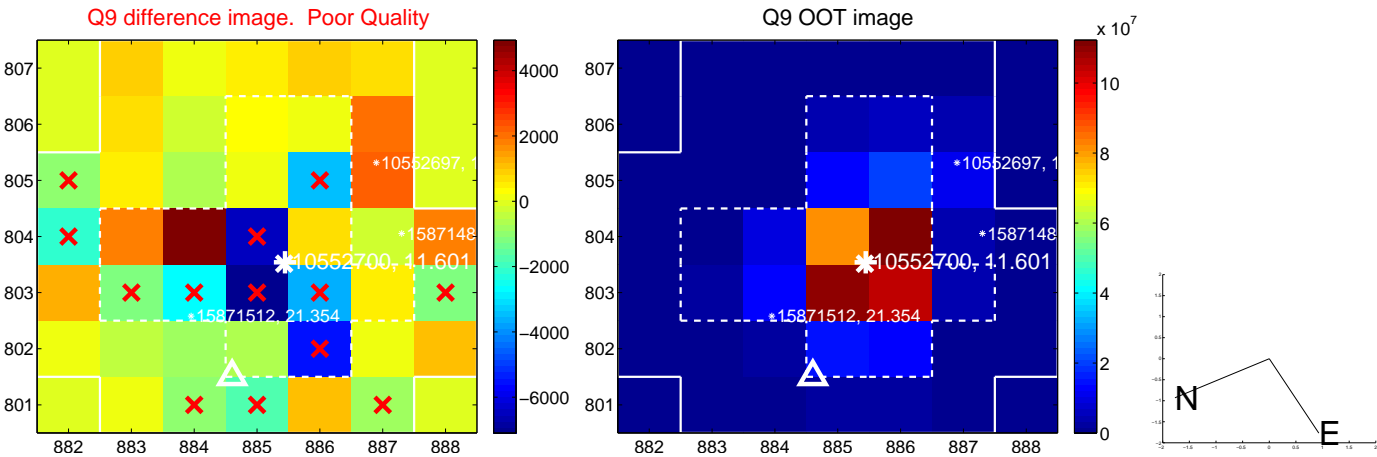
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



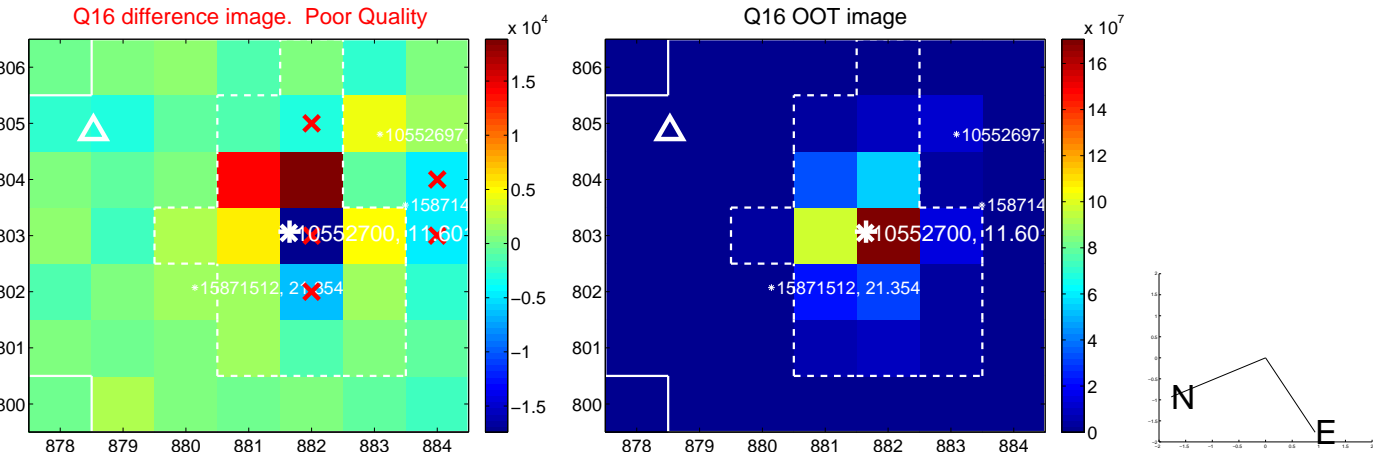
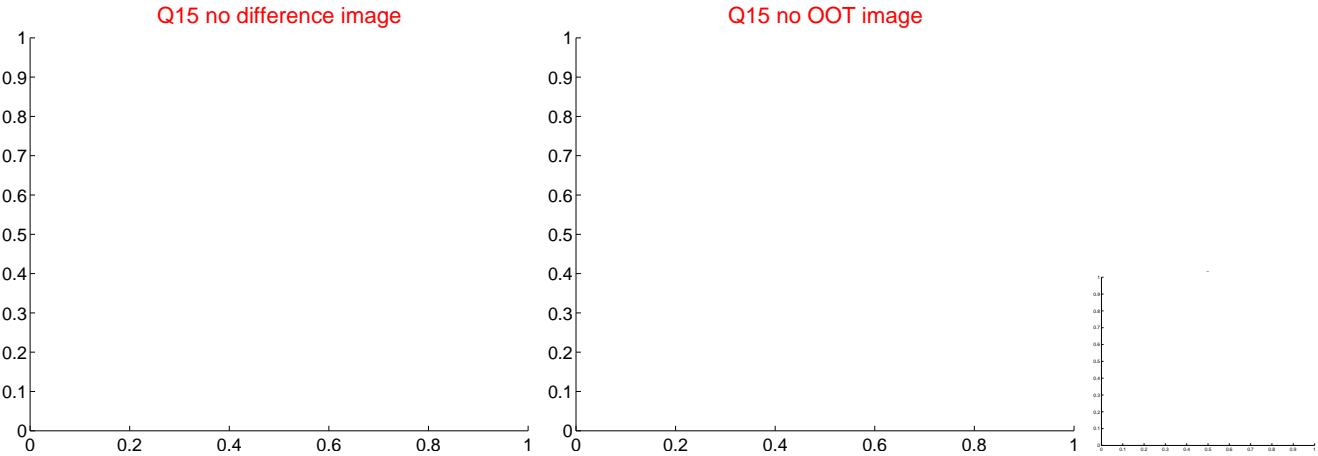
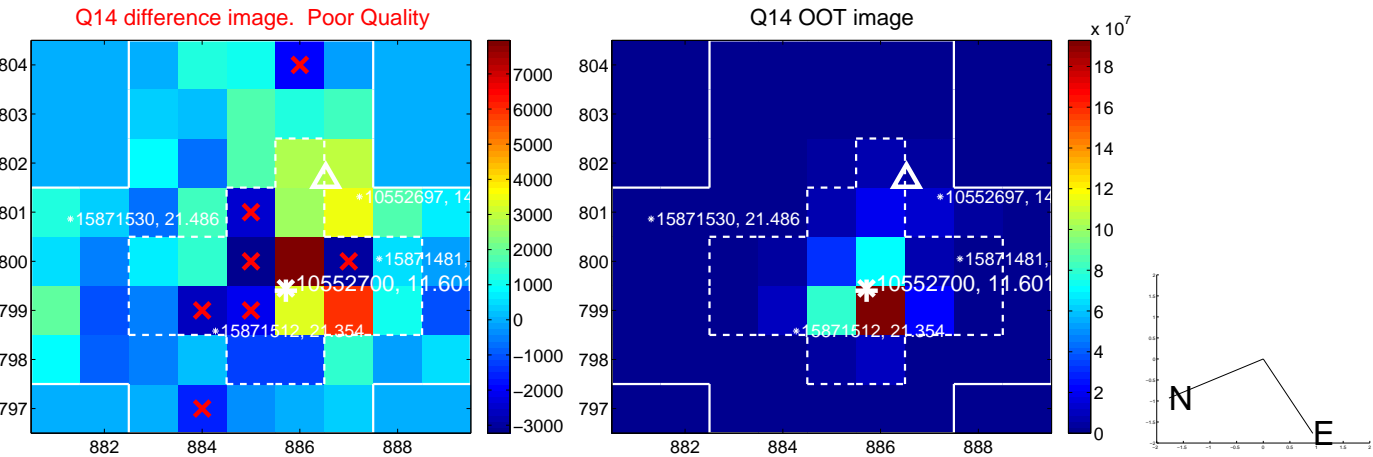
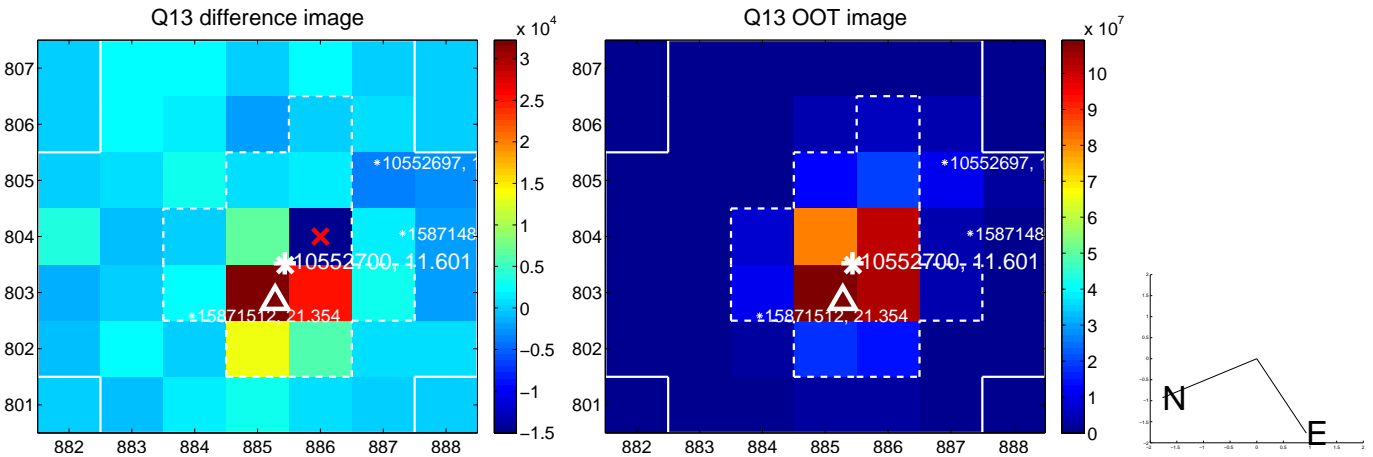
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



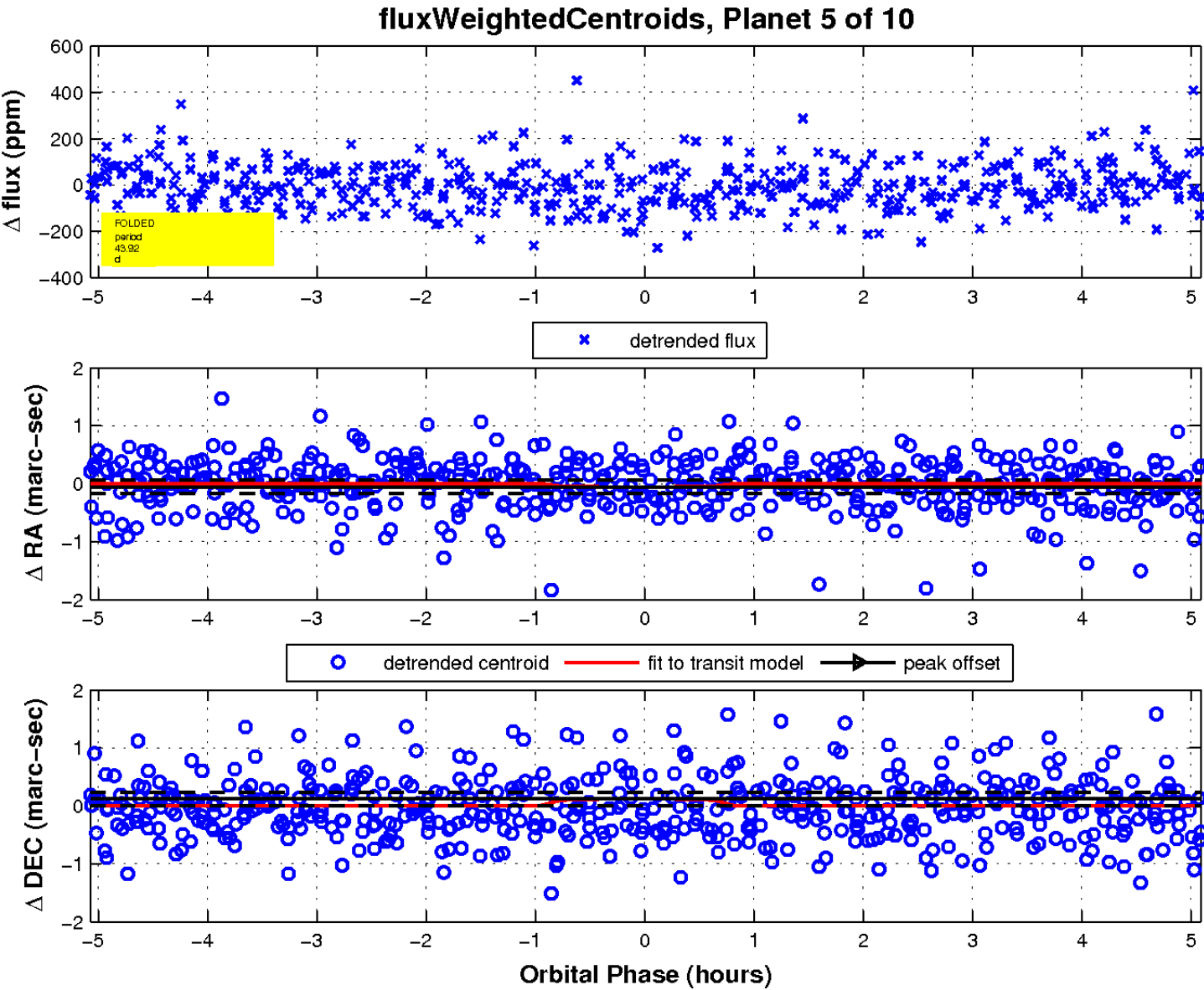
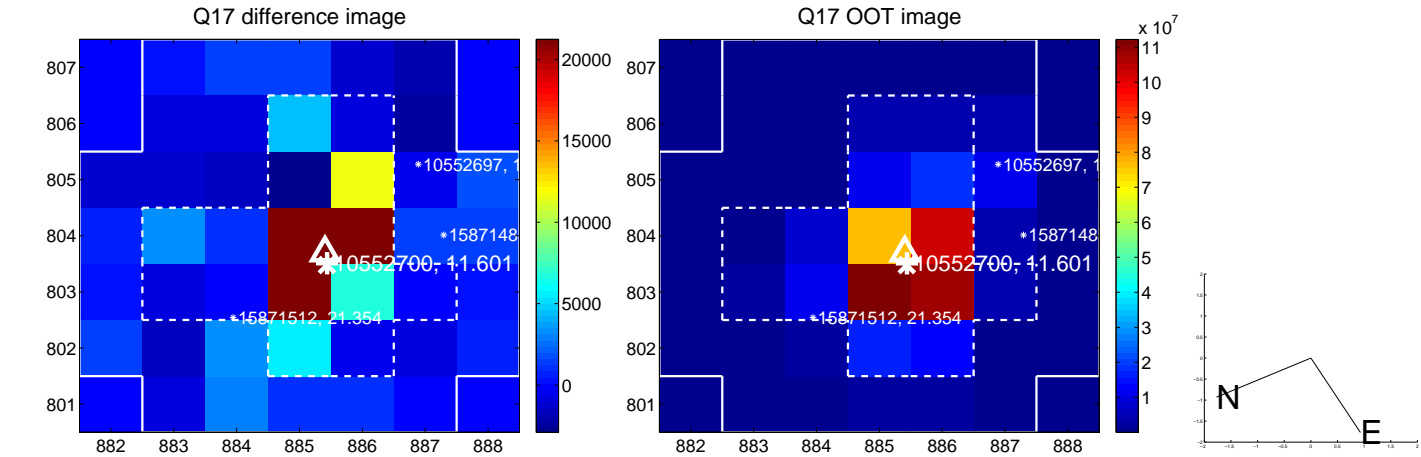
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

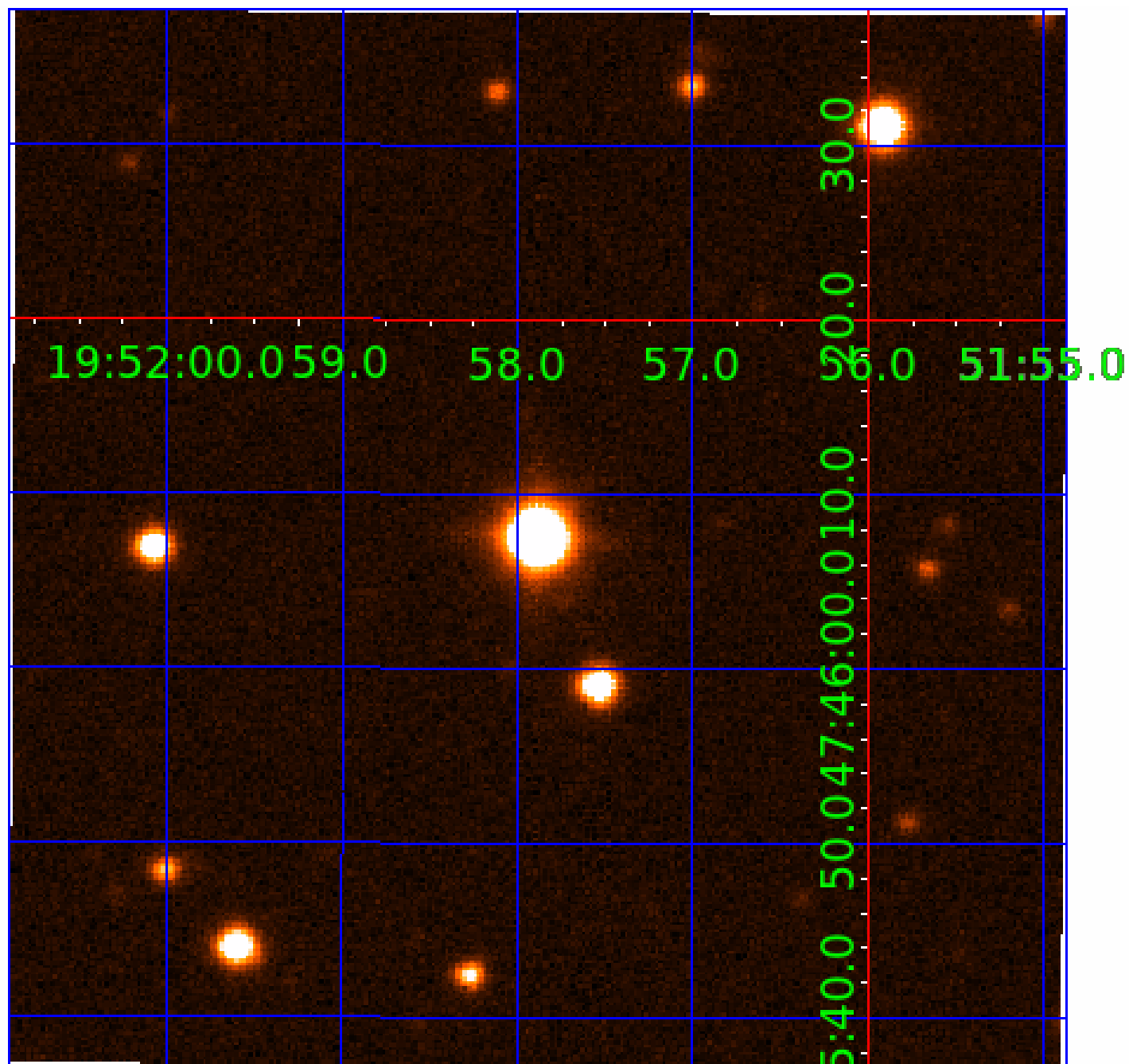


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
010552700-01	OBS	7342.01	0.947637	131.958058	3.9	5.827	10.7	2.8	2.86	6875	0.66	30174.11
010552700-02	OBS	No	46.382972	162.859199	245.5	1.305	9.4	12.1	2.86	6875	5.08	168.53
010552700-03	OBS	No	135.910835	169.141834	206.3	2.598	8.9	7.9	2.86	6875	4.78	40.19
010552700-04	OBS	No	414.093817	367.252579	237.0	16.216	8.1	7.3	2.86	6875	5.10	9.10
010552700-05	OBS	No	43.917309	161.103293	147.1	1.700	8.6	8.6	2.86	6875	3.99	181.26
010552700-06	OBS	No	53.247872	151.349957	91.0	7.054	8.8	6.3	2.86	6875	2.96	140.20
010552700-07	OBS	No	85.256851	152.433220	118.1	3.369	8.6	5.8	2.86	6875	3.38	74.85
010552700-08	OBS	No	21.570584	139.269988	71.5	2.686	8.6	6.6	2.86	6875	2.83	467.74
010552700-09	OBS	No	46.327798	145.577777	109.3	1.551	8.6	5.5	2.86	6875	3.38	168.80
010552700-10	OBS	No	58.468746	146.900902	150.9	2.910	7.9	7.3	2.86	6875	4.03	123.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010552700-01	OBS	FP	0.00	1	0	0	0	LPP_DV
010552700-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
010552700-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
010552700-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
010552700-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV
010552700-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
010552700-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET—HALO_GHOST
010552700-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
010552700-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
010552700-10	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST

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

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

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

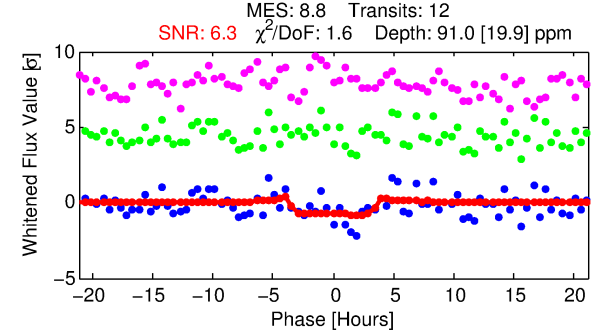
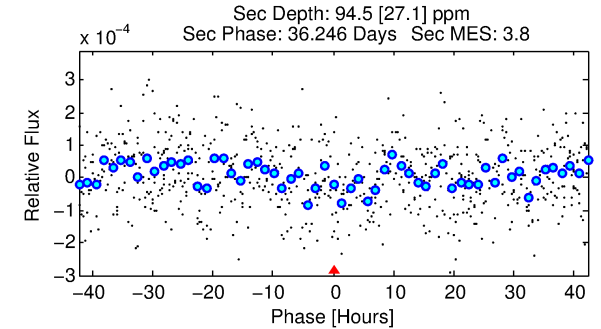
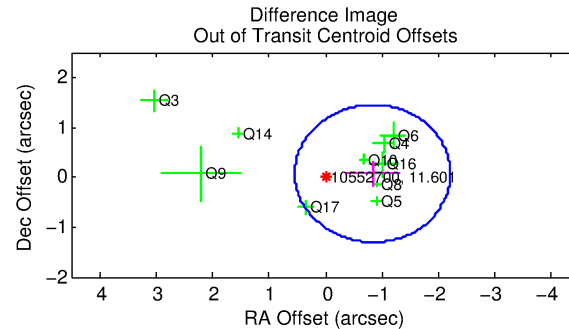
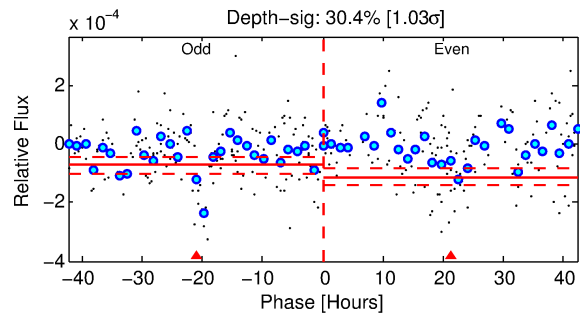
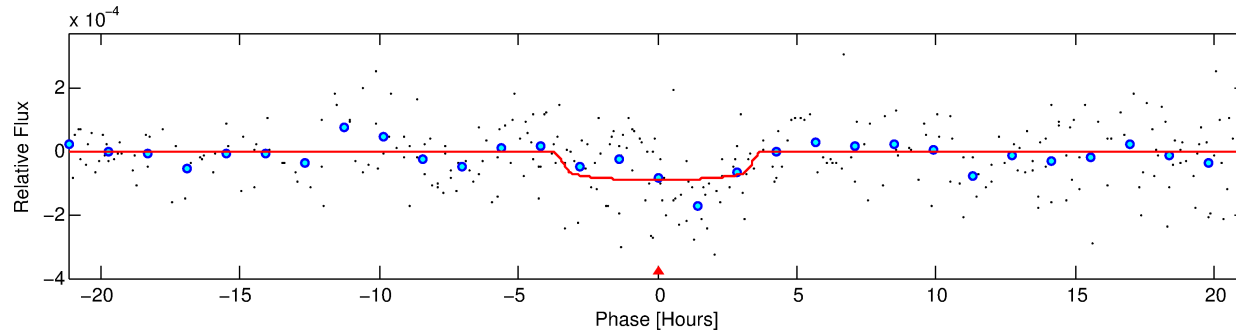
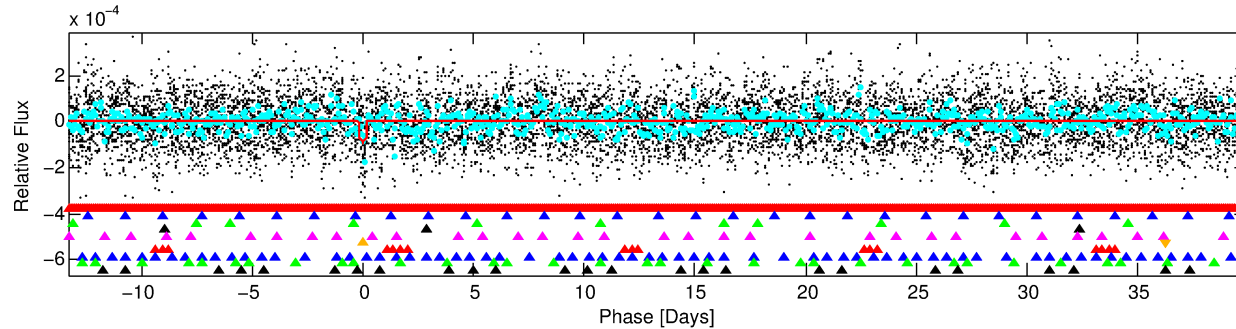
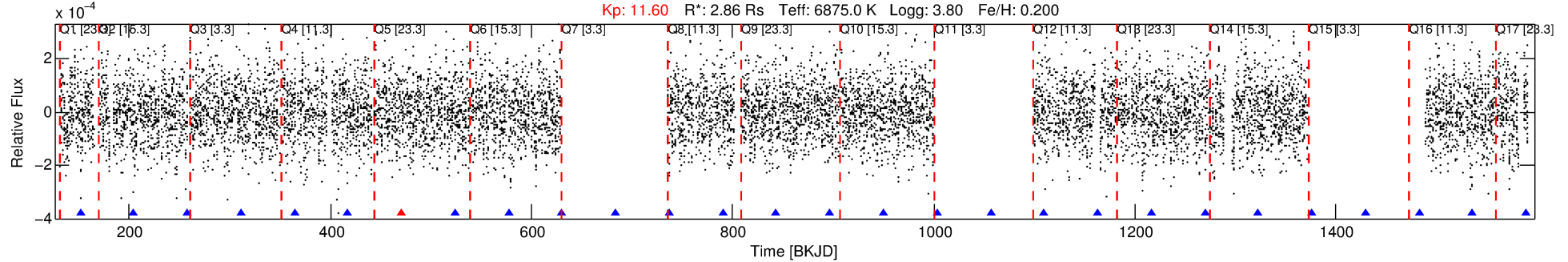
Ephemeris Match Information For 010552700-06

No Significant Match Found

DV One-Page Summary

KIC: 10552700 Candidate: 6 of 10 Period: 53.248 d
KOI: K07342 Corr: No Ephemeris Match

Kp: 11.60 R*: 2.86 Rs Teff: 6875.0 K Logg: 3.80 Fe/H: 0.200



DV Fit Results:

Period = 53.24787 [0.00119] d
Epoch = 151.3500 [0.0203] BKJD
Rp/R* = 0.0095 [0.0080]
a/R* = 38.35 [183.71]
b = 0.76 [2.69]
Seff = 140.20 [66.21]
Teq = 877 [104] K
Rp = 2.96 [2.66] Re
a = 0.3412 [0.1007] AU
Ag = 689.02 [1210.02] [0.57σ]
Teffp = 6950 [2957] K [2.05σ]

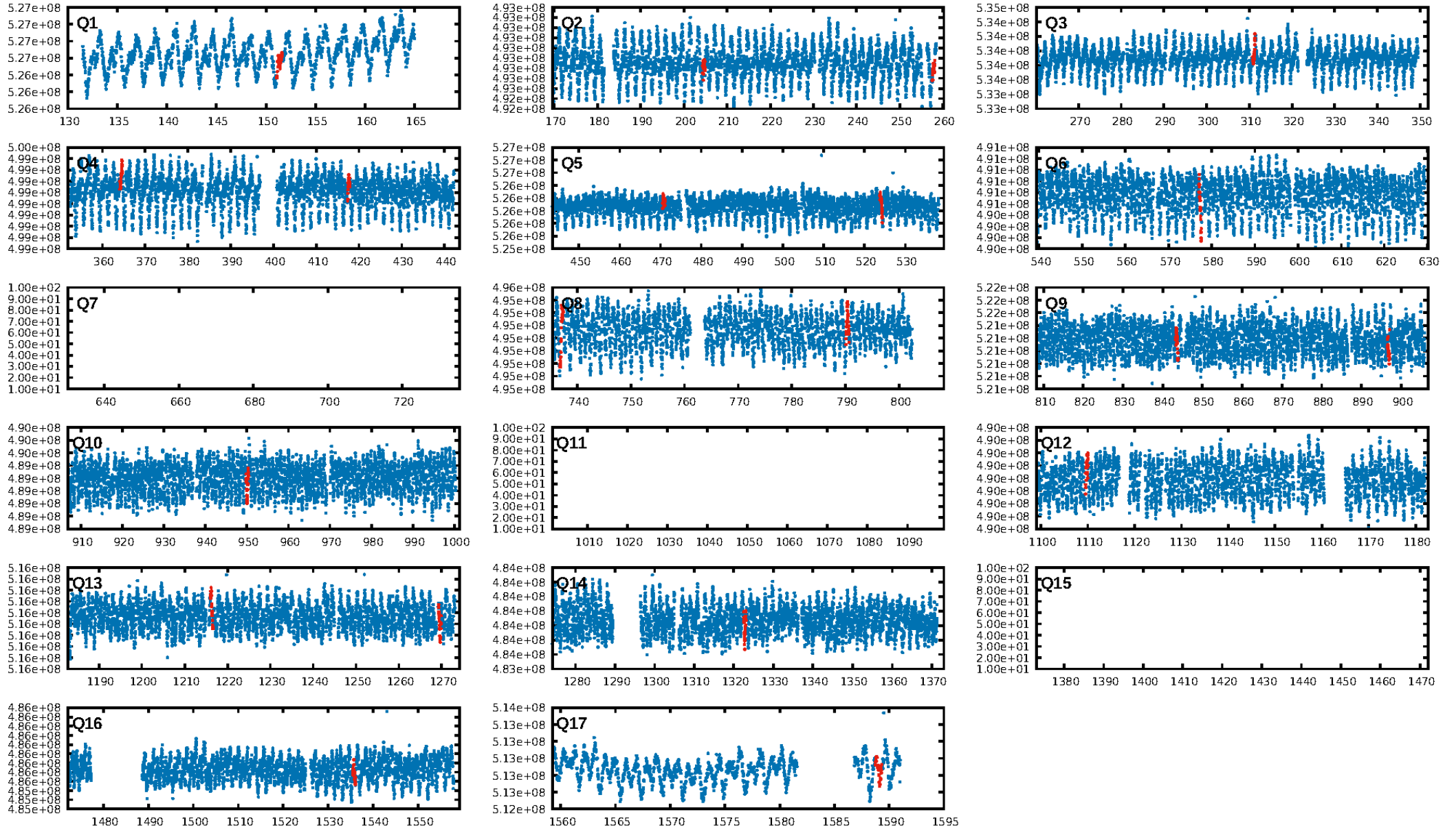
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [22.97σ]
LongPeriod-sig: 100.0% [16.42σ]
ModelChiSquare2-sig: 0.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.90 [9/10]
GhostDiagnostic-chr: -0.1958
Centroid-sig: 91.2%
Centroid-so: 0.211 arcsec [0.23σ]
OotOffset-rm: 0.836 arcsec [1.82σ]
KicOffset-rm: 0.798 arcsec [1.57σ]
OotOffset-st: 3/1/3/3 [10]
KicOffset-st: 3/1/3/3 [10]
DiffImageQuality-fgm: 0.50 [5/10]
DiffImageOverlap-fno: 0.00 [0/12]

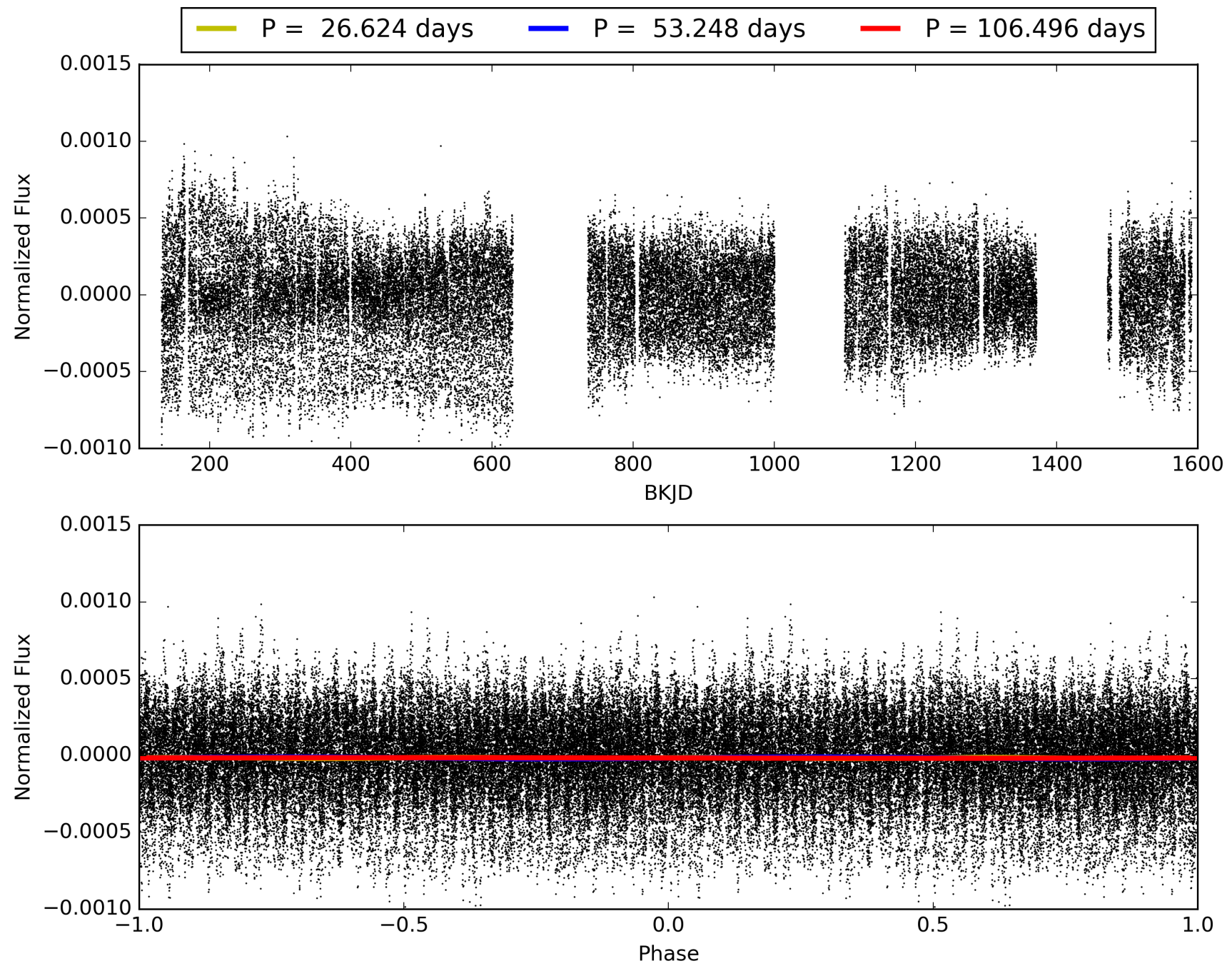
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:51:12 Z

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

TCE 010552700-06, PDC Light Curves

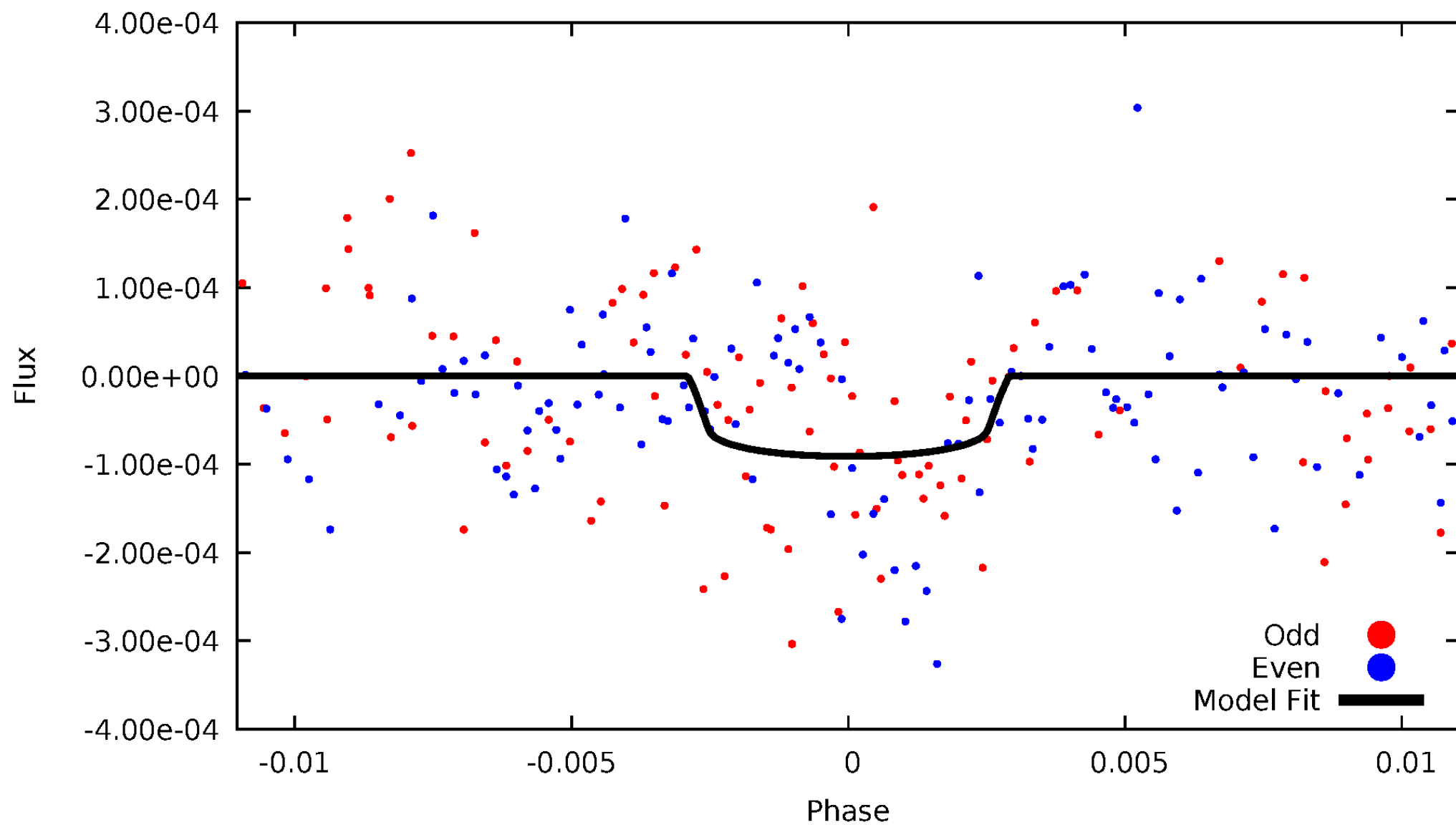


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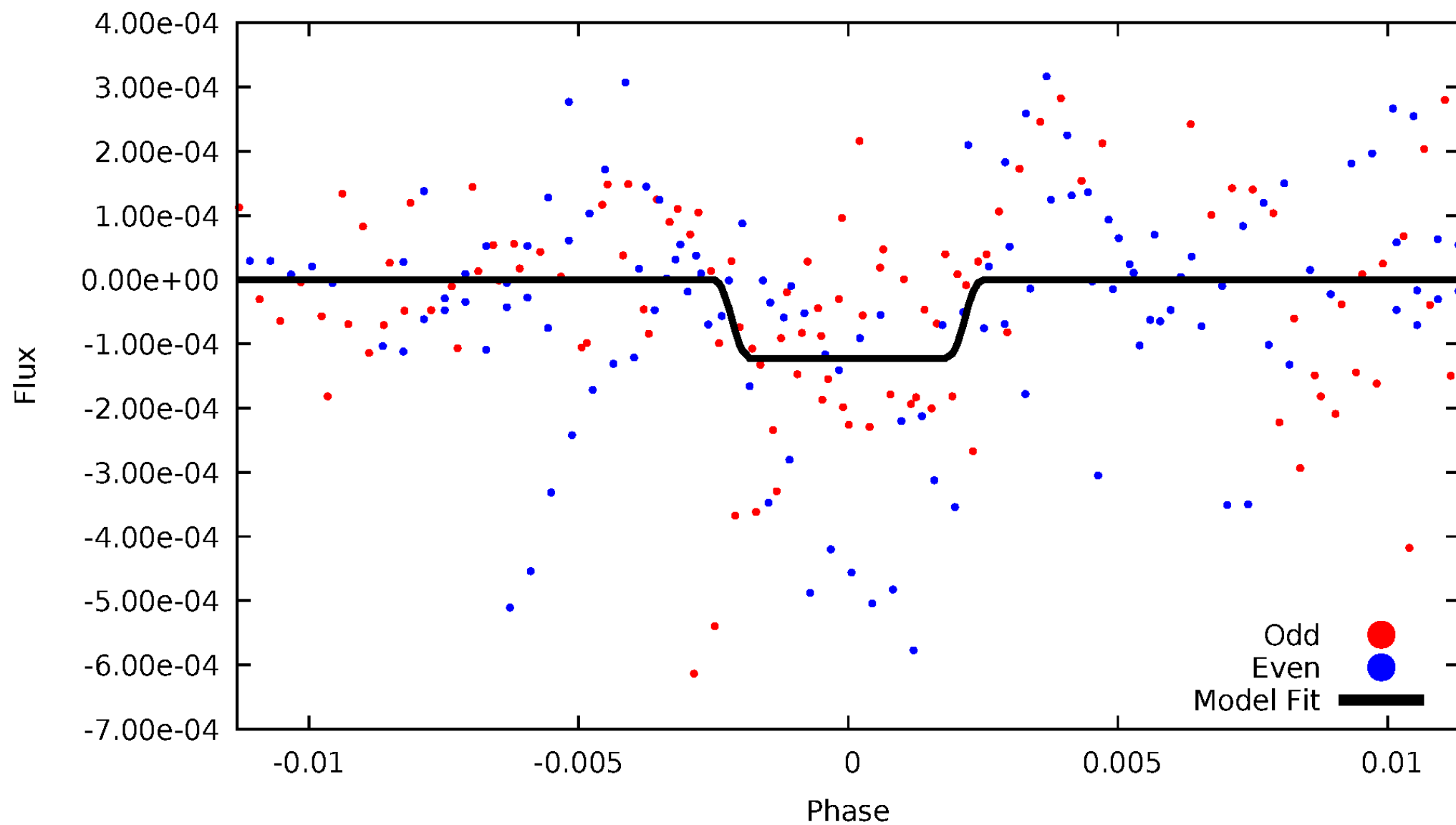
DV Odd/Even

TCE 010552700-06



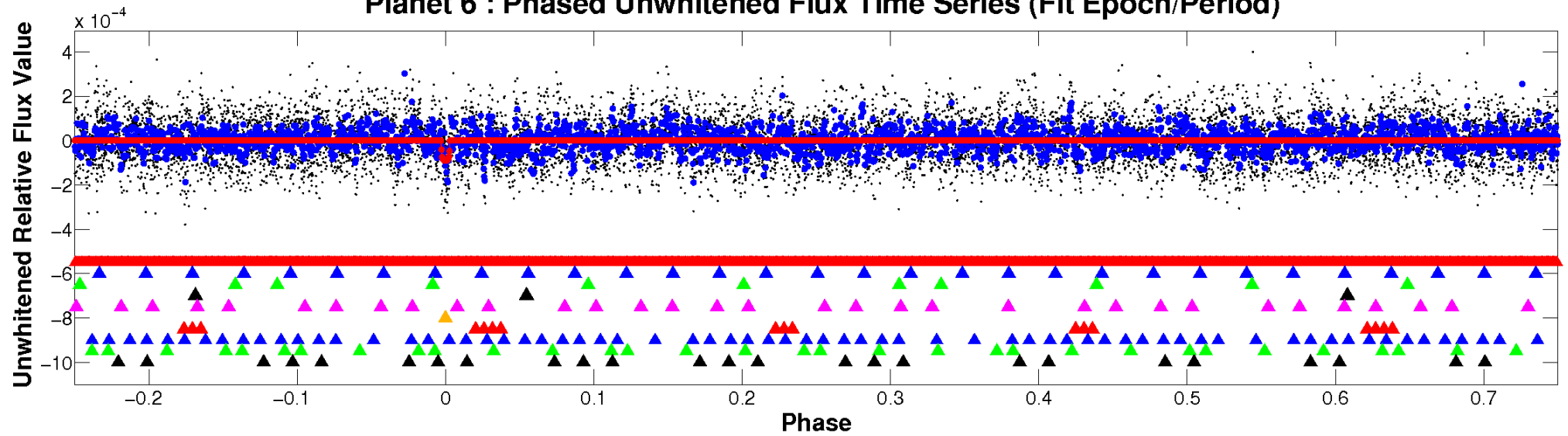
ALT Odd/Even

TCE 010552700-06

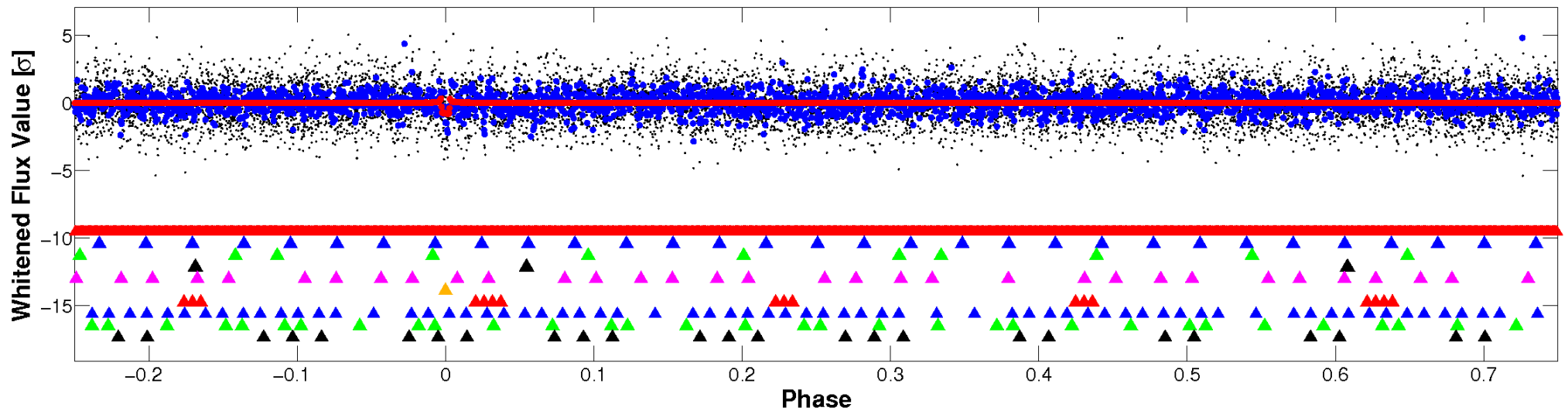


Non-Whitened Vs. Whitened Light Curve

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

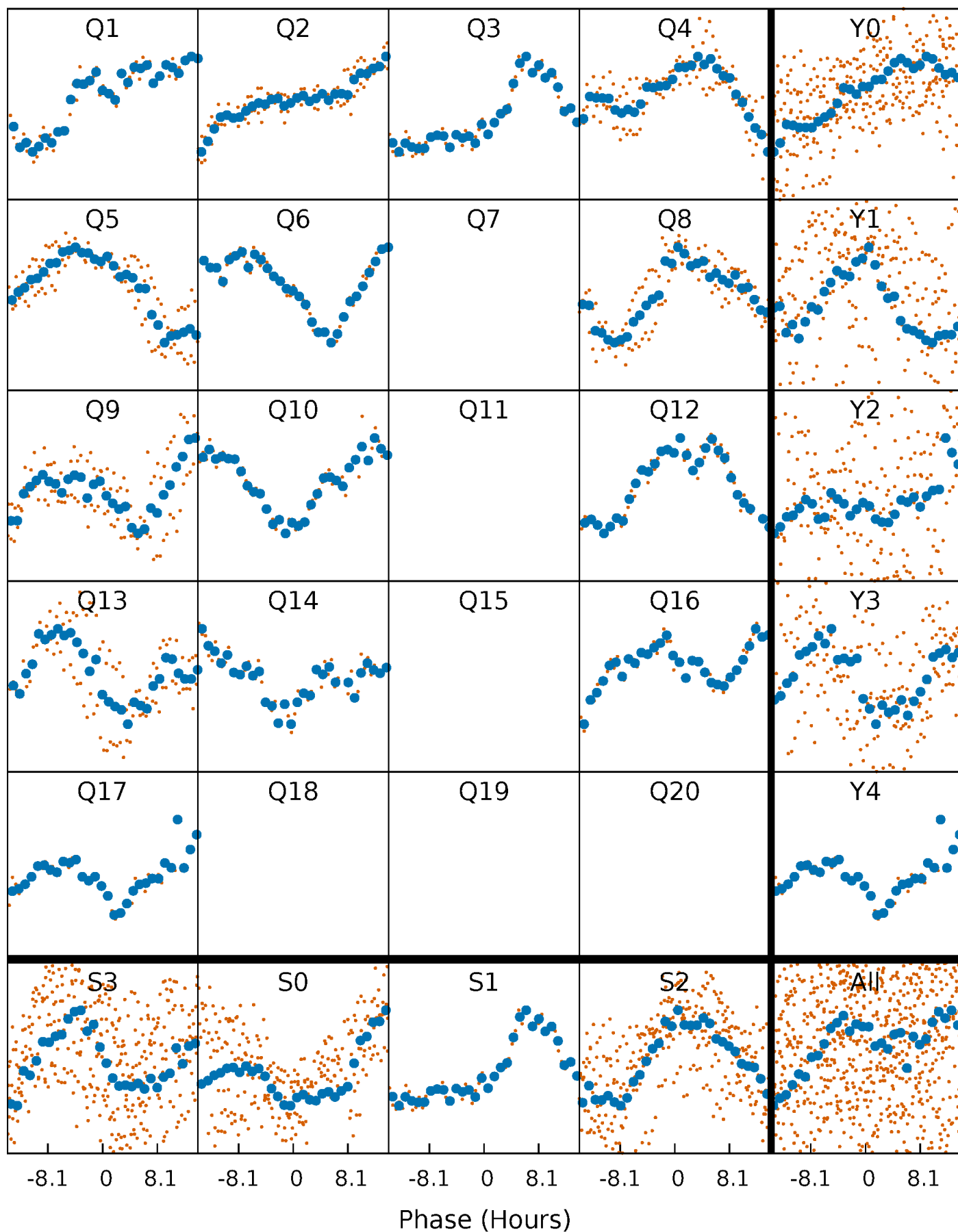


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



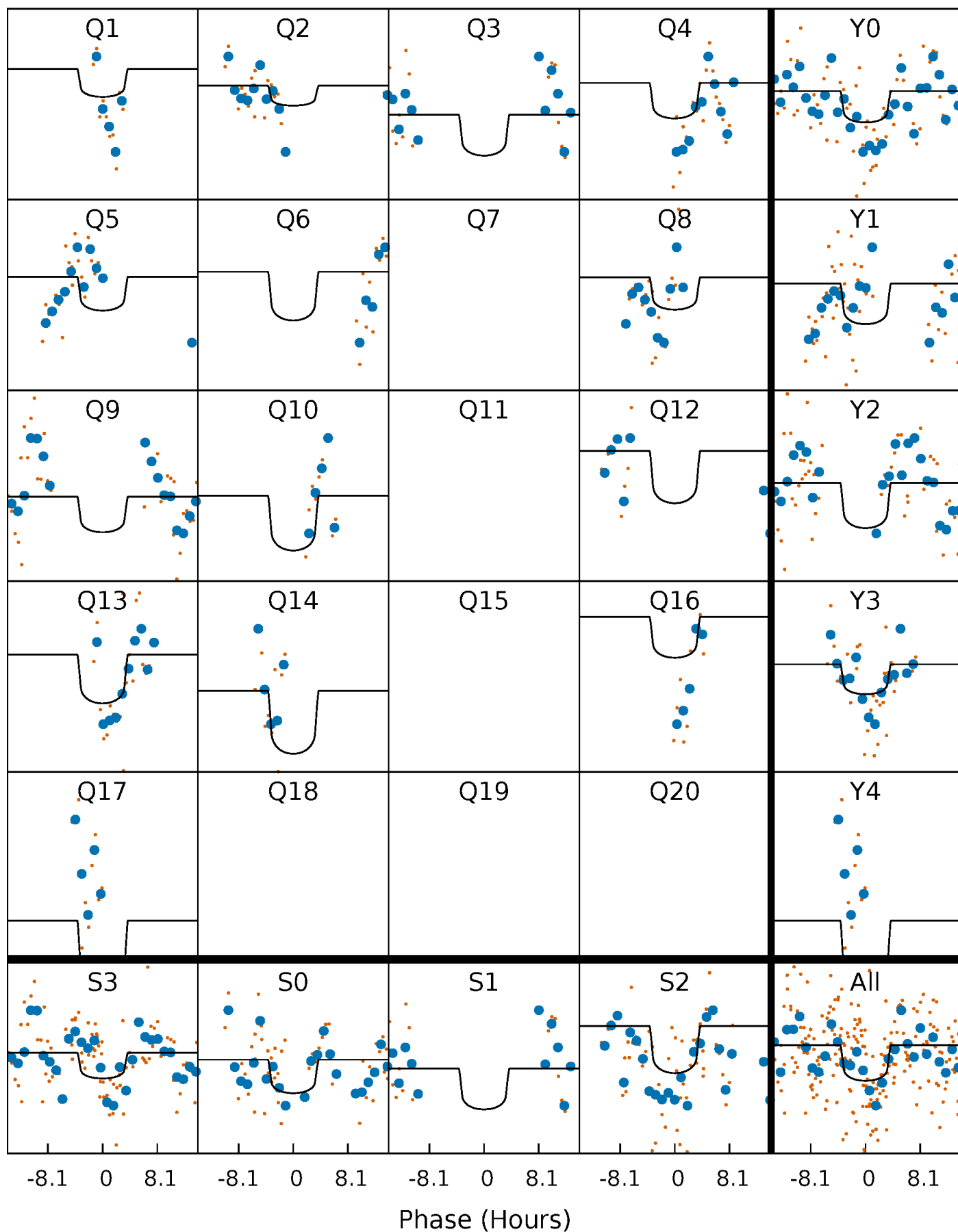
PDC Quarter-Phased Transit Curves

TCE 010552700-06 P= 53.247872 Days $T_0=151.349957$ (BKJD)



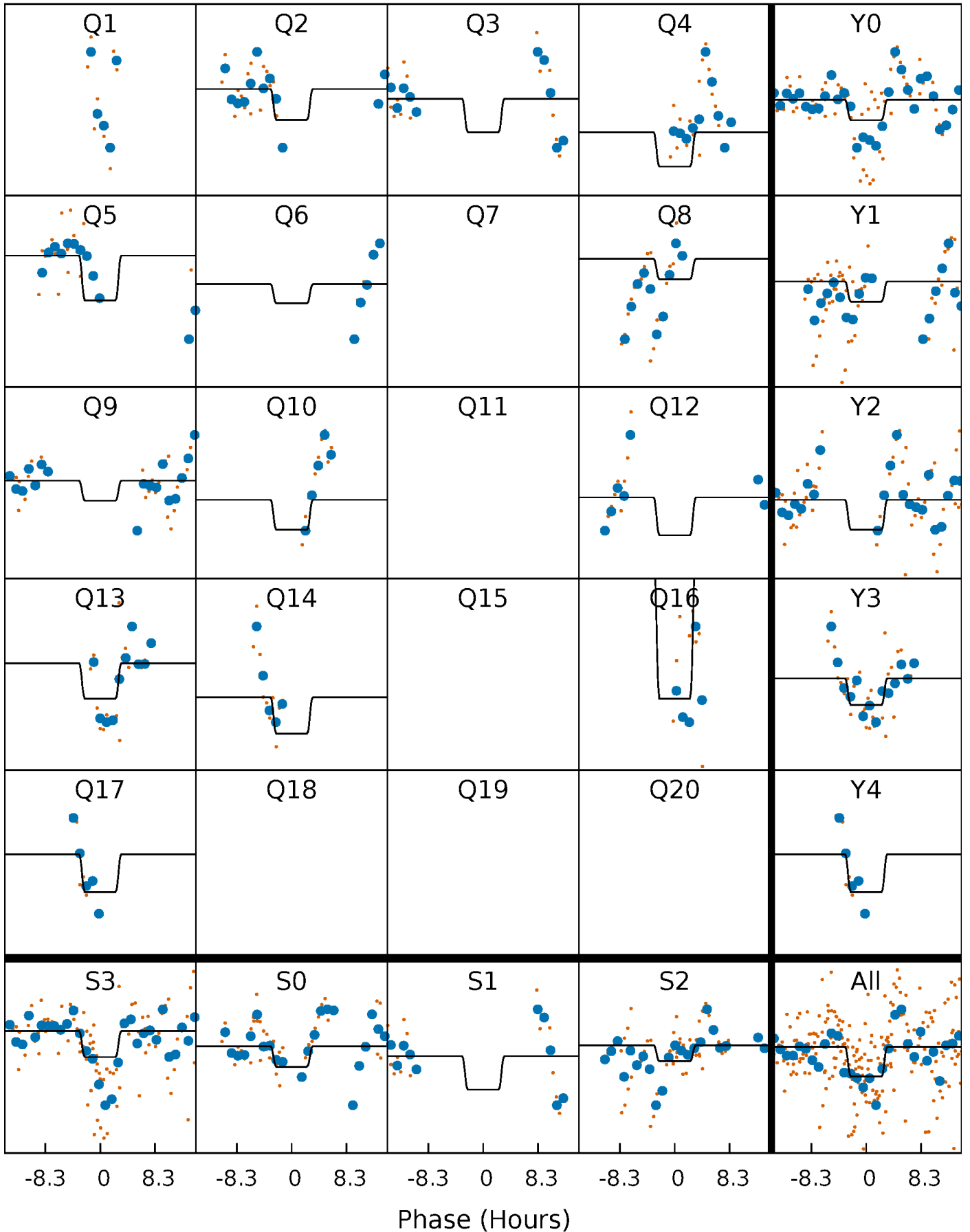
DV Quarter-Phased Transit Curves

TCE 010552700-06 P= 53.247872 Days $T_0=151.349957$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

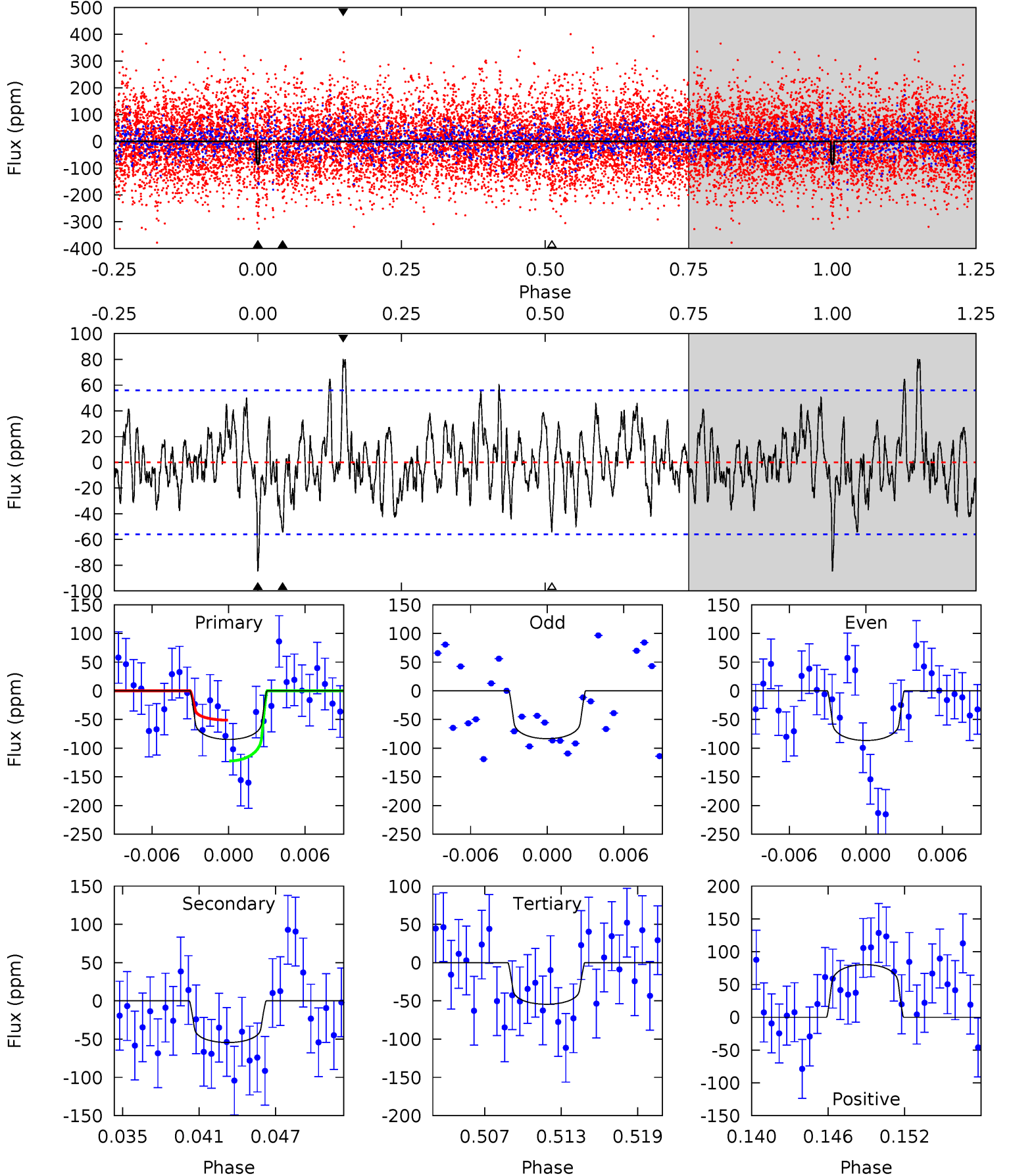
TCE 010552700-06 $P = 53.247166$ Days $T_0 = 151.370821$ (BKJD)



DV Model-Shift Uniqueness Test

010552700-06, P = 53.247872 Days, E = 98.102085 Days

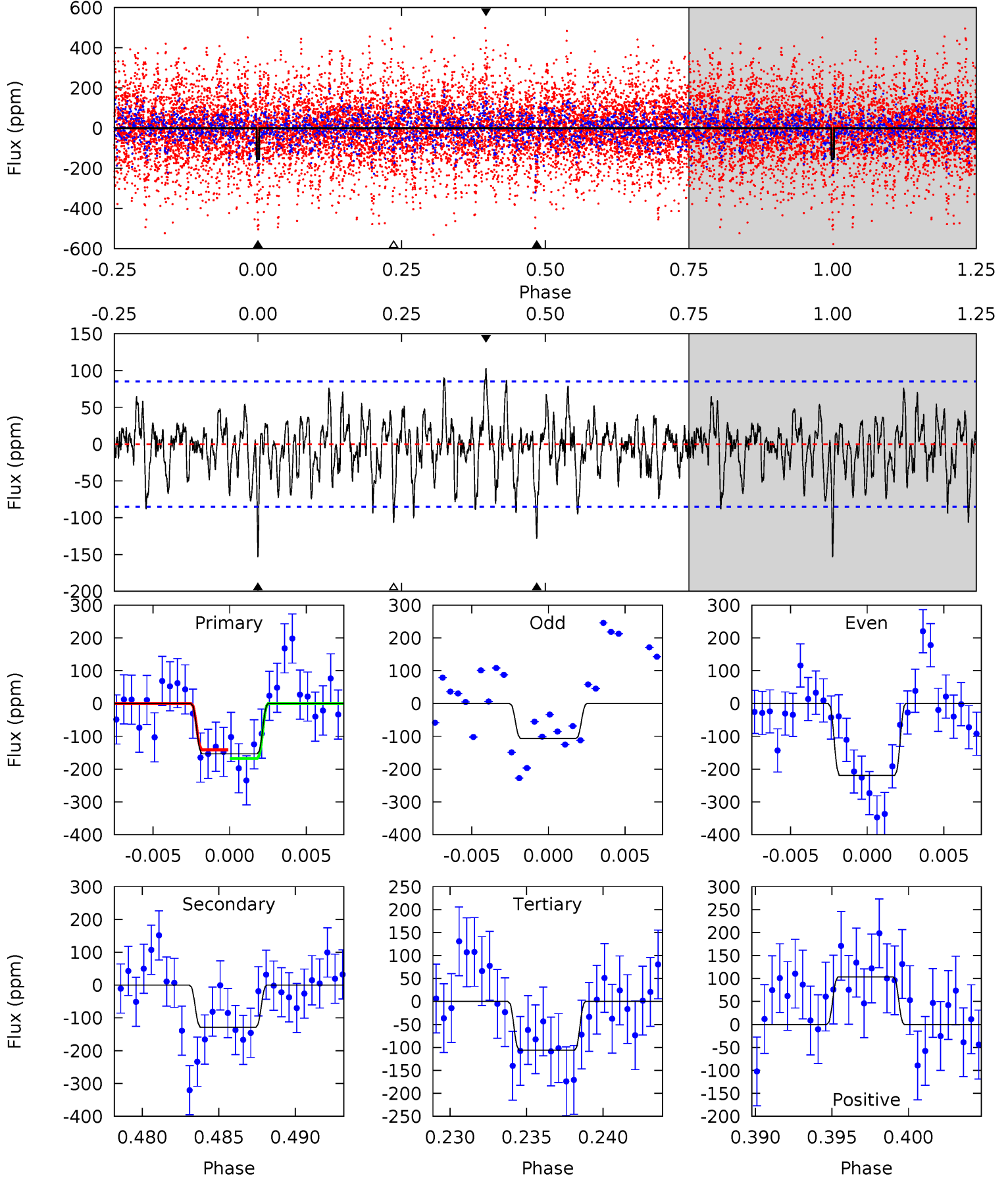
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.78	5.00	4.99	7.36	5.13	2.76	1.88	2.79	0.42	0.01	-2.37	0.14	0.77	0.49	3.27



Alt Model-Shift Uniqueness Test

010552700-06, P = 53.247166 Days, E = 98.123655 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.29	7.78	6.43	6.25	5.16	2.81	1.91	2.86	3.04	1.35	1.53	3.32	1.03	0.40	0.80



Stellar Parameters For KIC 010552700

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6875^{+164}_{-226}	$3.798^{+0.259}_{-0.111}$	$0.200^{+0.200}_{-0.300}$	$2.856^{+0.503}_{-0.935}$	$1.868^{+0.180}_{-0.361}$	$0.113^{+0.194}_{-0.039}$
	+2%/-3%	+7%/-3%	+100%/-150%	+18%/-33%	+10%/-19%	+172%/-35%
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 010552700-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-54 ± 11	$3.19^{+2.37}_{-2.00}$	1207^{+74}_{-103}	5659^{+4269}_{-1223}	339^{+1894}_{-237}
Alt.	-129 ± 17	$3.50^{+2.33}_{-2.04}$	1211^{+78}_{-100}	6685^{+5142}_{-1441}	646^{+3128}_{-410}

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

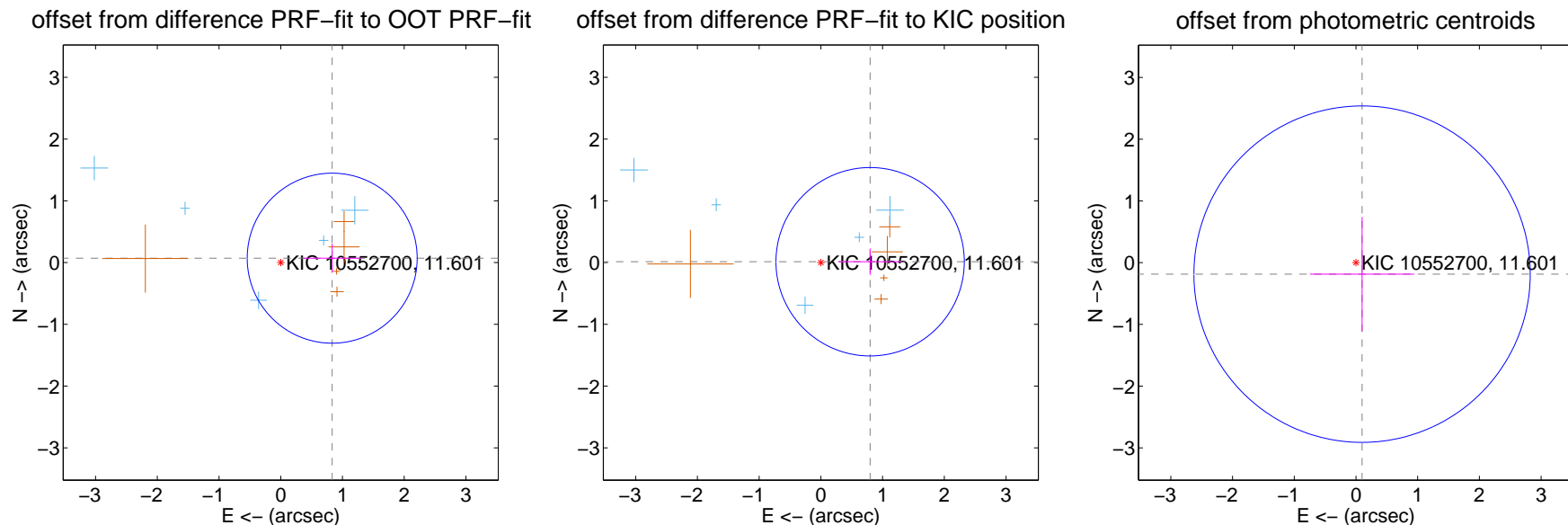
DV Centroid Data

Supplemental centroid analysis for 010552700-06. **Kepler magnitude: 11.60.** Transit SNR 6.28

There are 5 quarters with good PRF difference image offsets

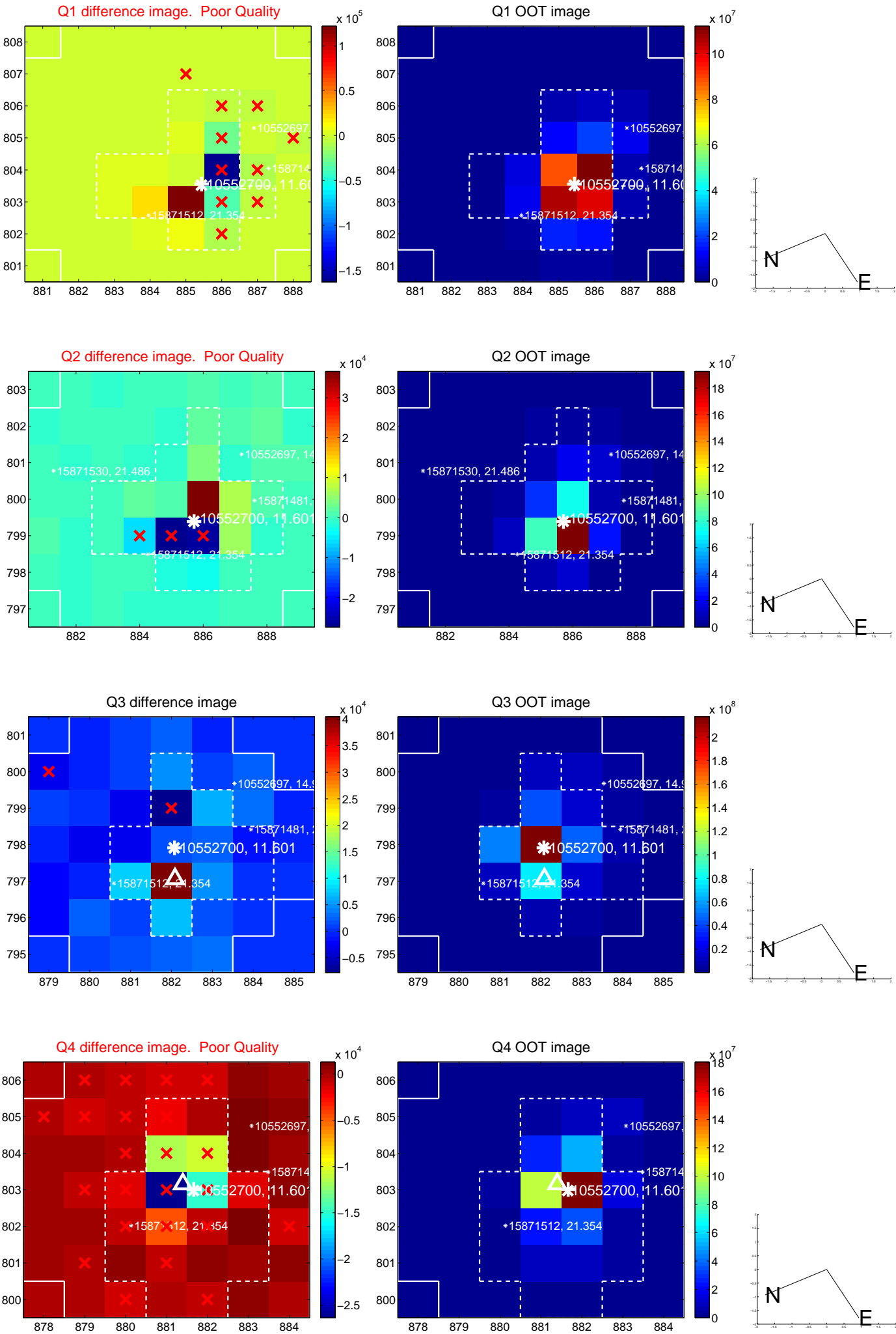
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.836 ± 0.459	1.82	-0.833 ± 0.469	0.071 ± 0.235
PRF-fit source offset from KIC position	0.798 ± 0.509	1.57	-0.798 ± 0.510	0.014 ± 0.213
photometric centroid source offset	0.21 ± 0.91	0.23	-0.10 ± 0.84	-0.19 ± 0.93

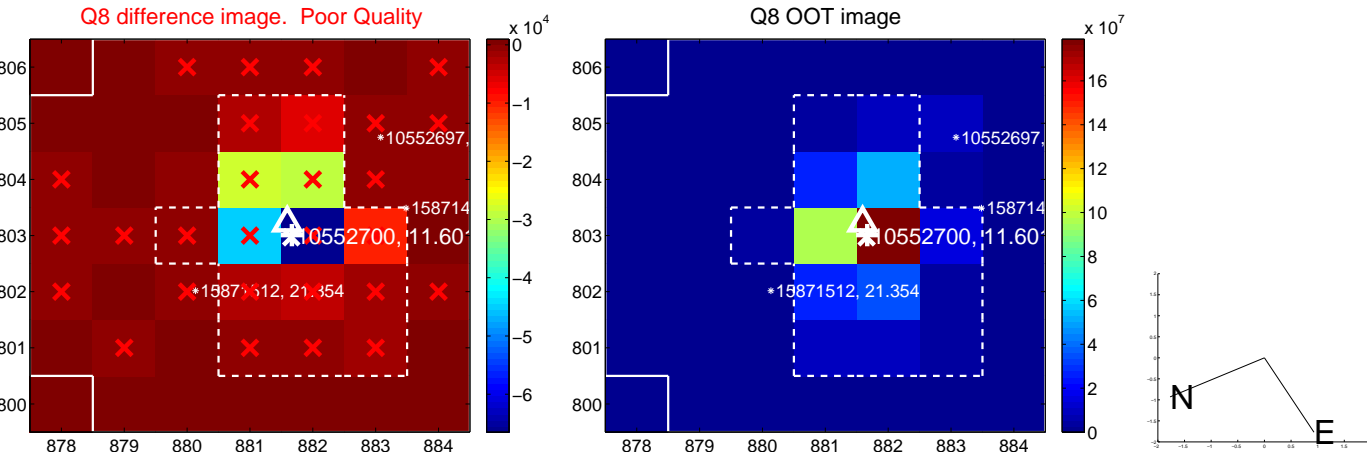
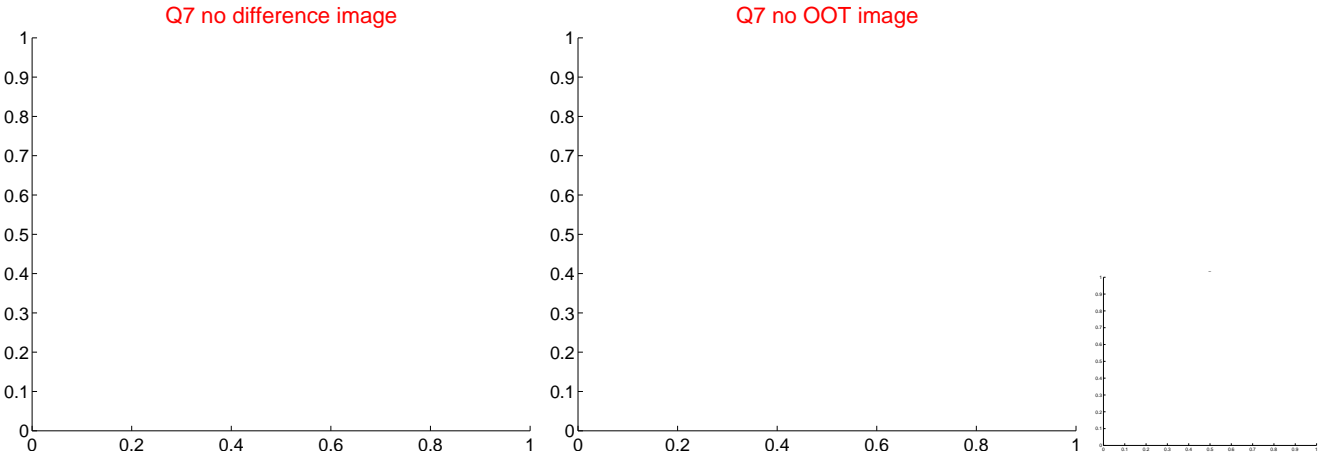
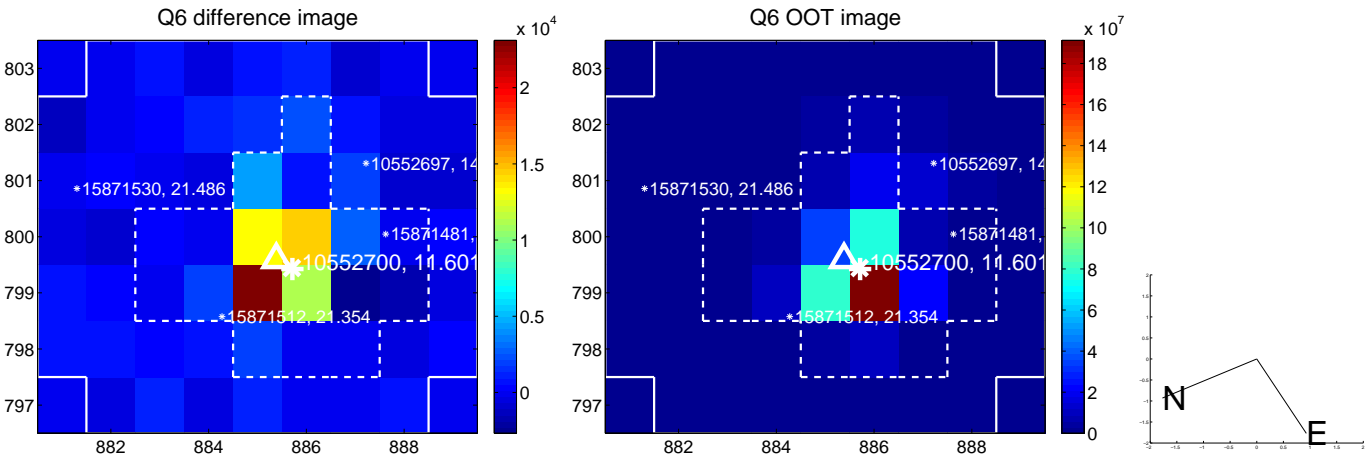
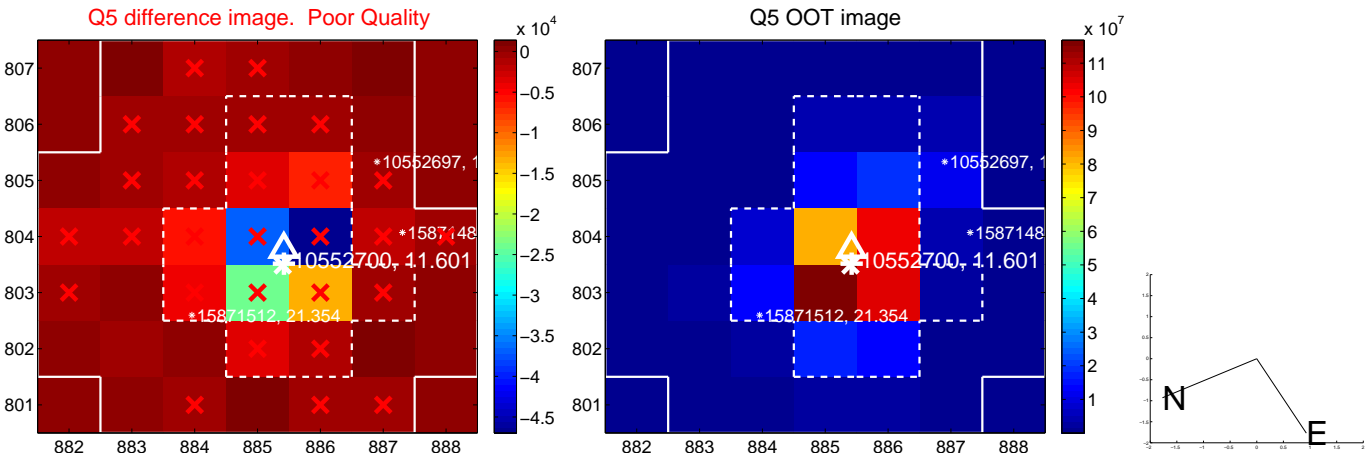


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

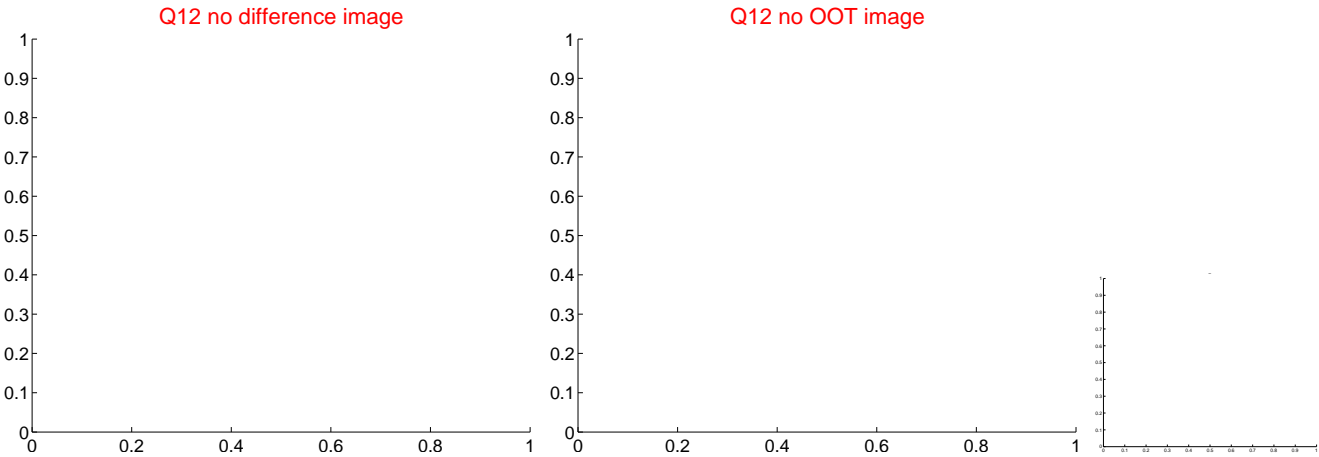
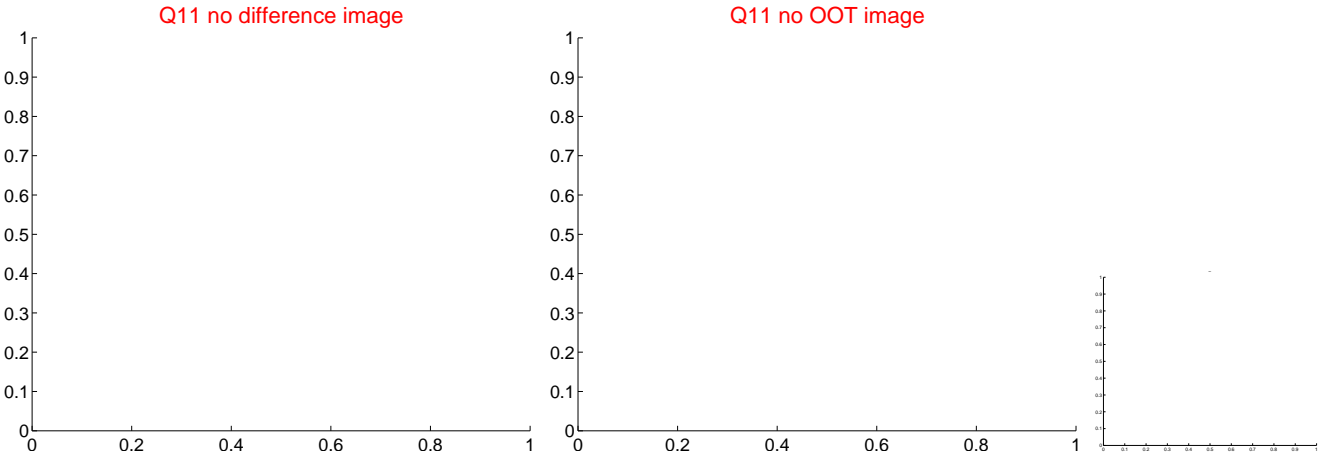
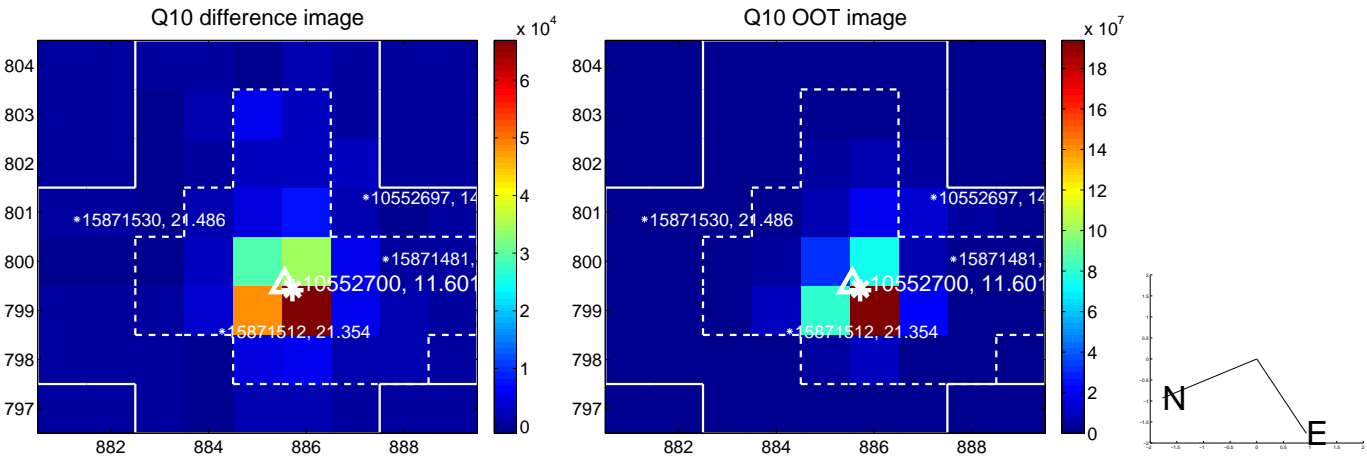
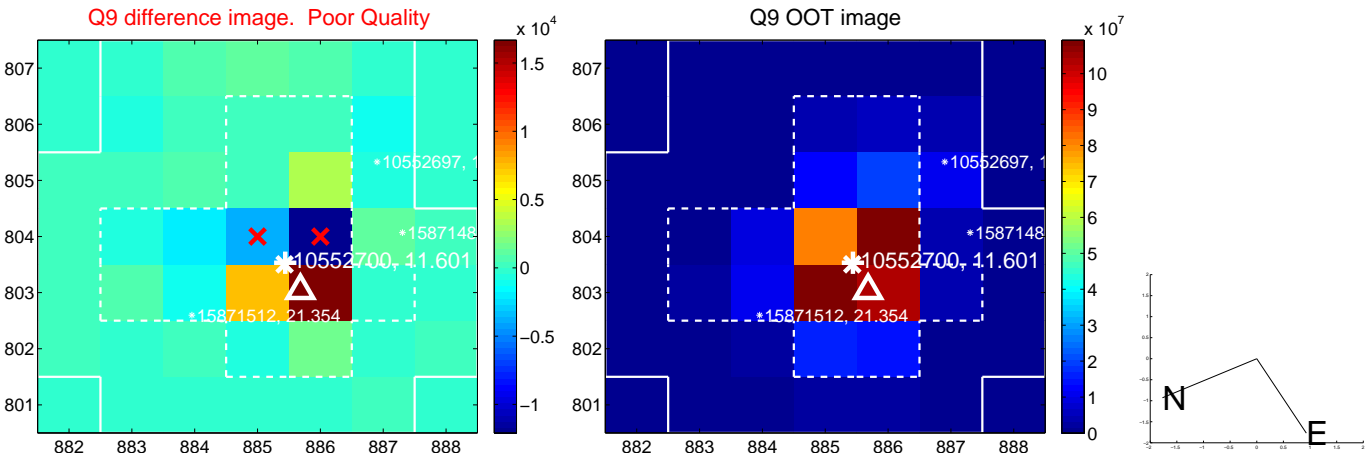
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



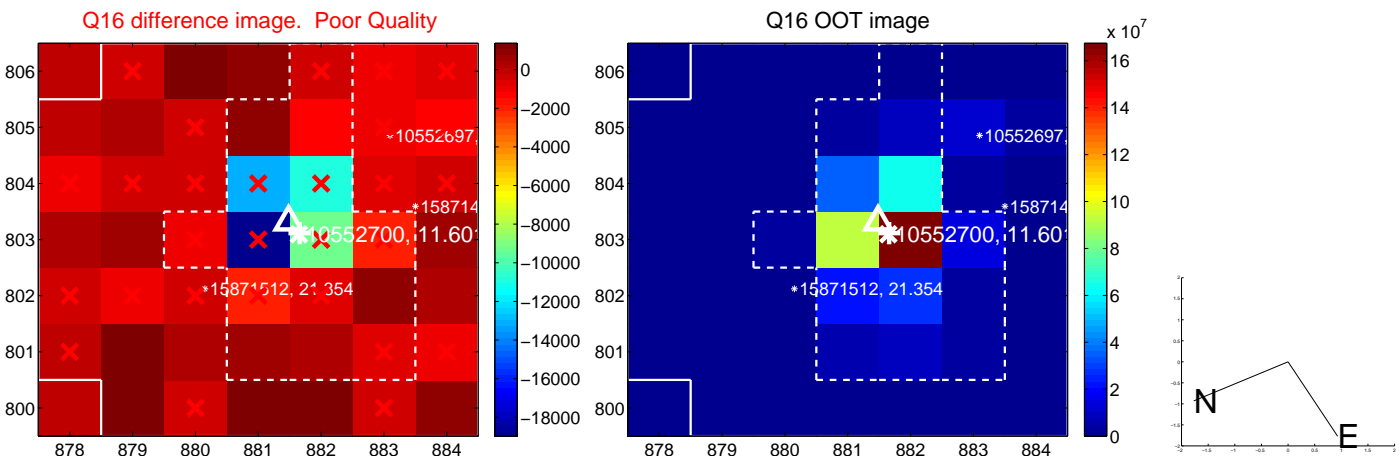
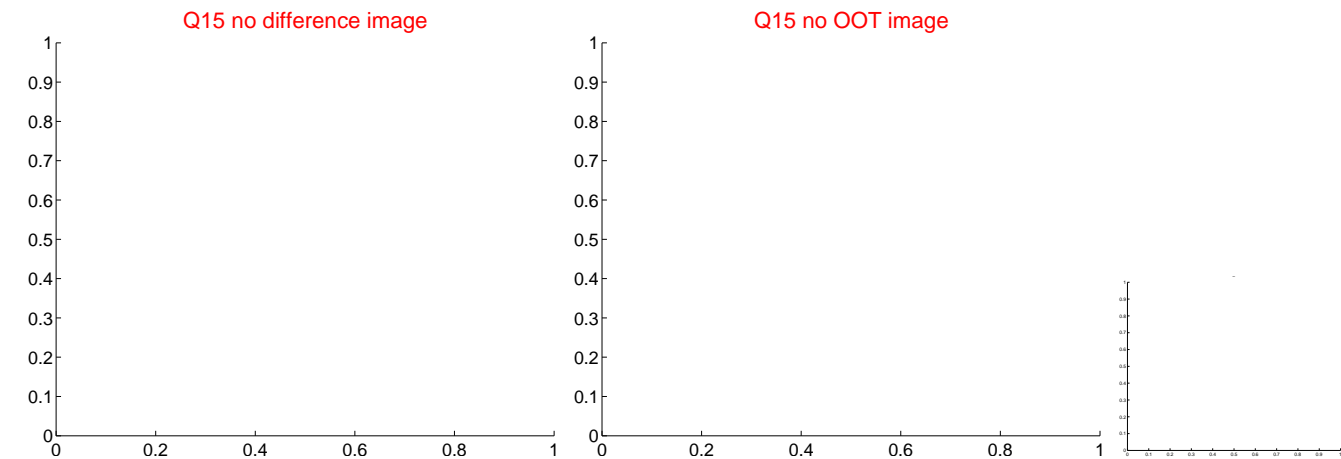
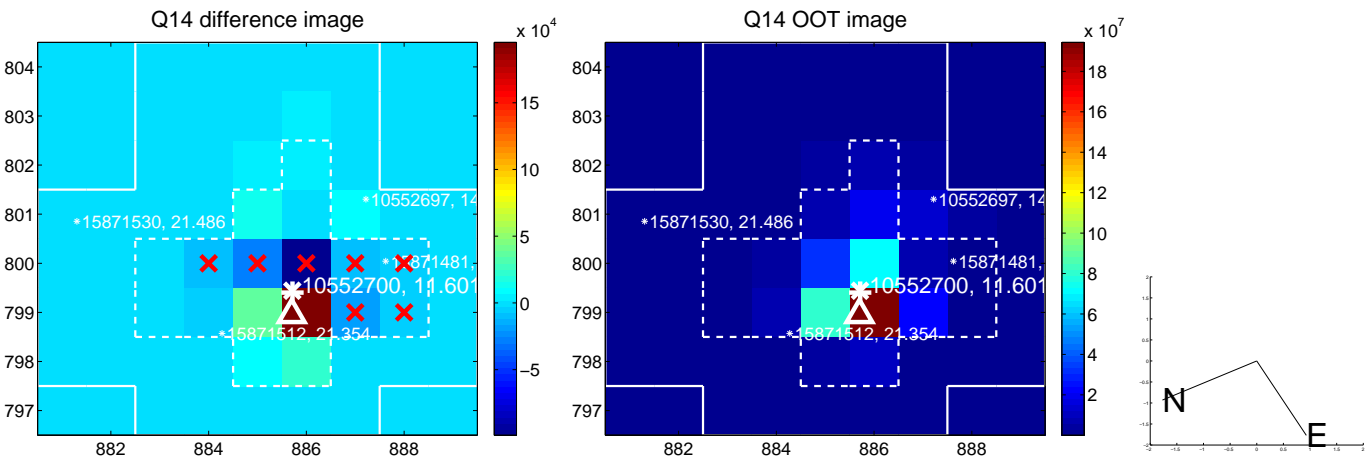
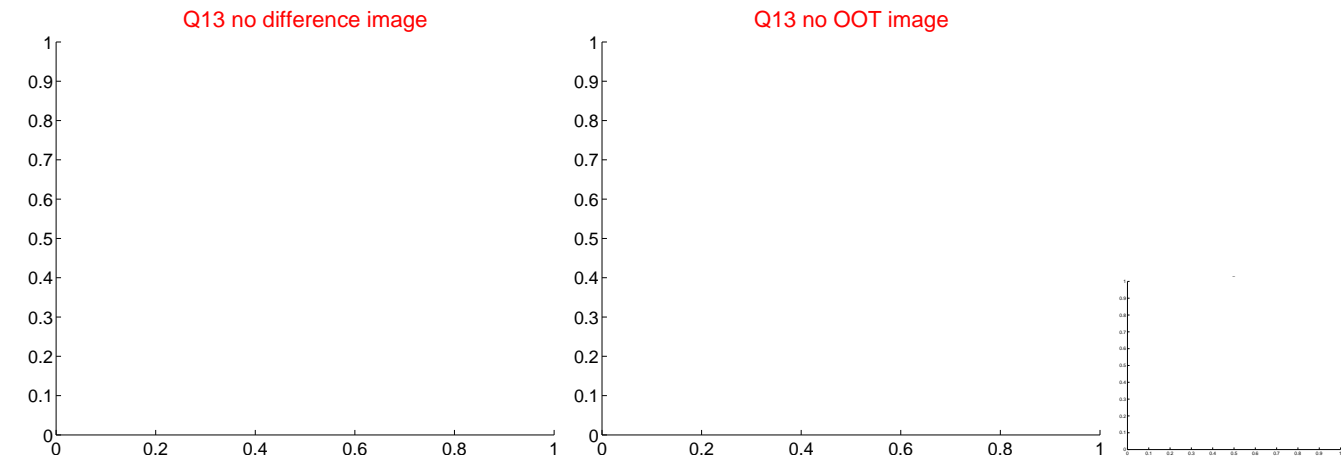
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



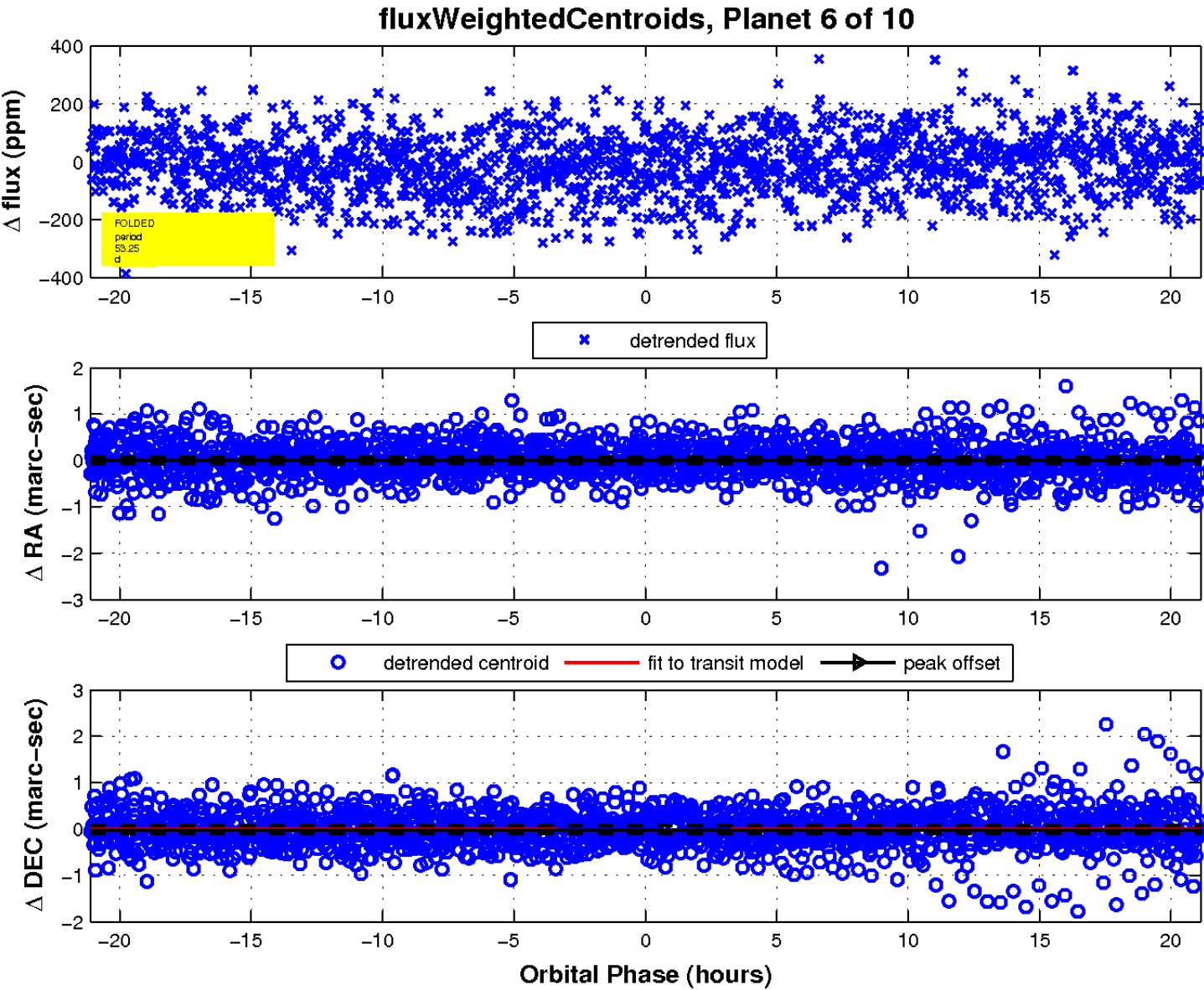
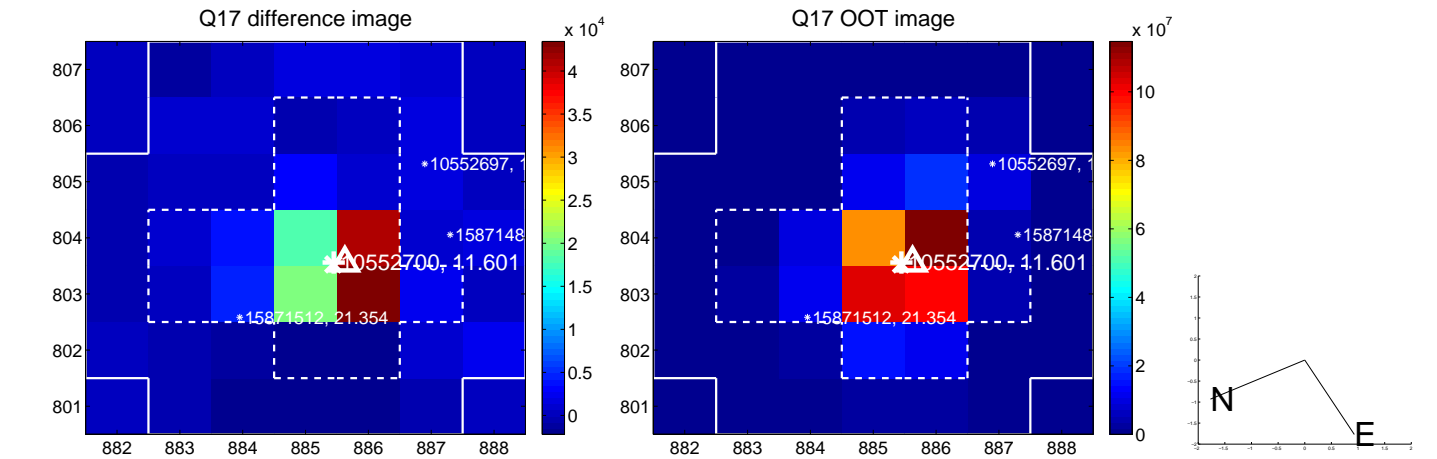
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

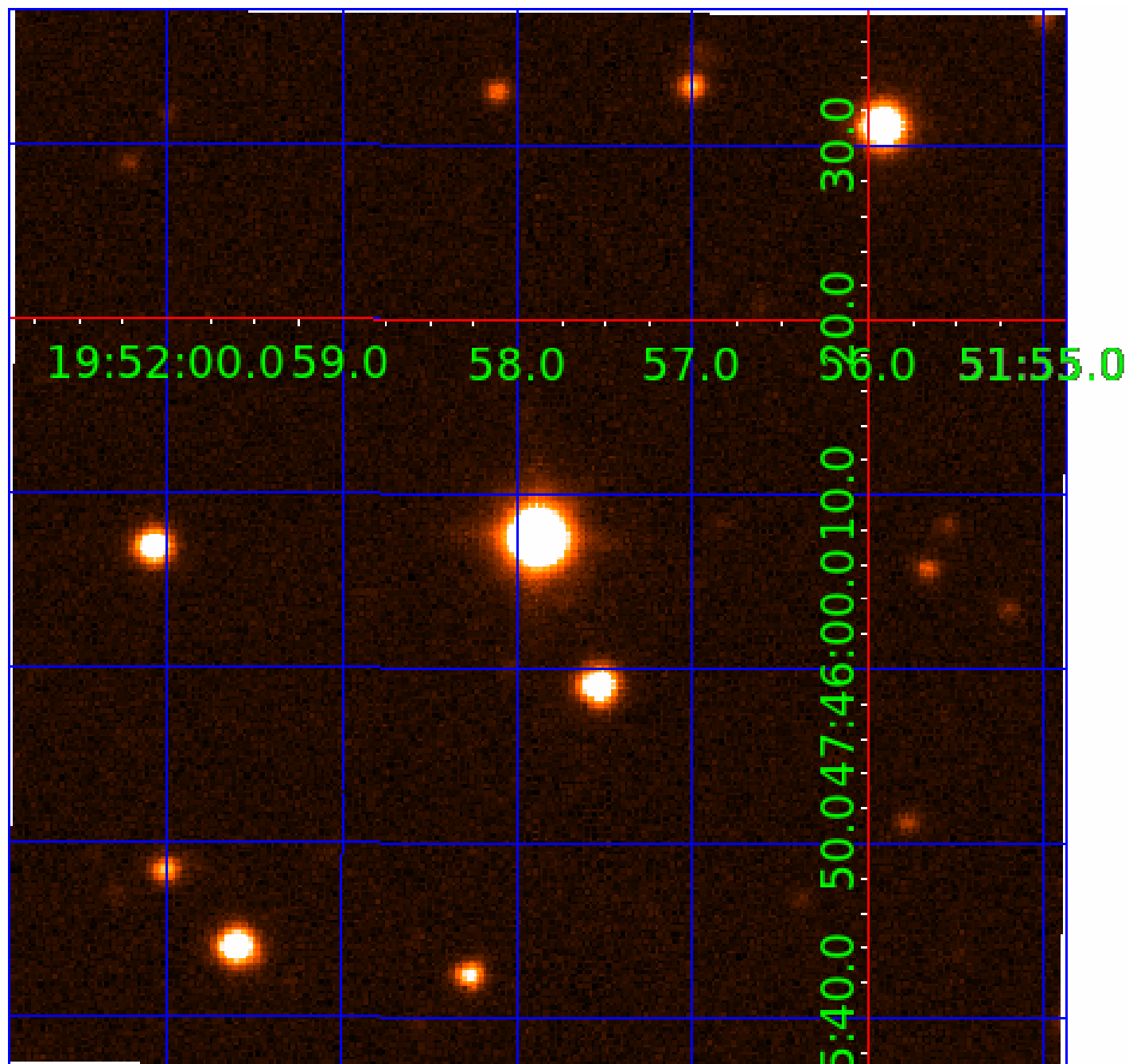


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
010552700-01	OBS	7342.01	0.947637	131.958058	3.9	5.827	10.7	2.8	2.86	6875	0.66	30174.11
010552700-02	OBS	No	46.382972	162.859199	245.5	1.305	9.4	12.1	2.86	6875	5.08	168.53
010552700-03	OBS	No	135.910835	169.141834	206.3	2.598	8.9	7.9	2.86	6875	4.78	40.19
010552700-04	OBS	No	414.093817	367.252579	237.0	16.216	8.1	7.3	2.86	6875	5.10	9.10
010552700-05	OBS	No	43.917309	161.103293	147.1	1.700	8.6	8.6	2.86	6875	3.99	181.26
010552700-06	OBS	No	53.247872	151.349957	91.0	7.054	8.8	6.3	2.86	6875	2.96	140.20
010552700-07	OBS	No	85.256851	152.433220	118.1	3.369	8.6	5.8	2.86	6875	3.38	74.85
010552700-08	OBS	No	21.570584	139.269988	71.5	2.686	8.6	6.6	2.86	6875	2.83	467.74
010552700-09	OBS	No	46.327798	145.577777	109.3	1.551	8.6	5.5	2.86	6875	3.38	168.80
010552700-10	OBS	No	58.468746	146.900902	150.9	2.910	7.9	7.3	2.86	6875	4.03	123.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010552700-01	OBS	FP	0.00	1	0	0	0	LPP_DV
010552700-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
010552700-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
010552700-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
010552700-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV
010552700-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
010552700-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET—HALO_GHOST
010552700-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
010552700-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
010552700-10	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST

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

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

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

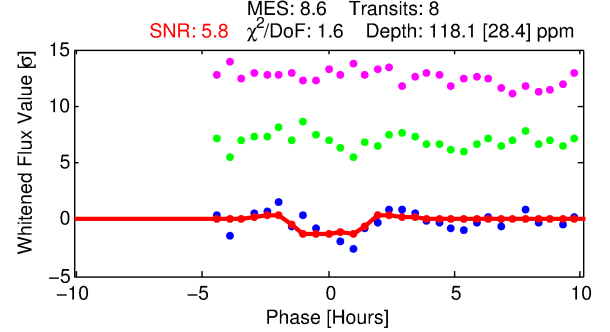
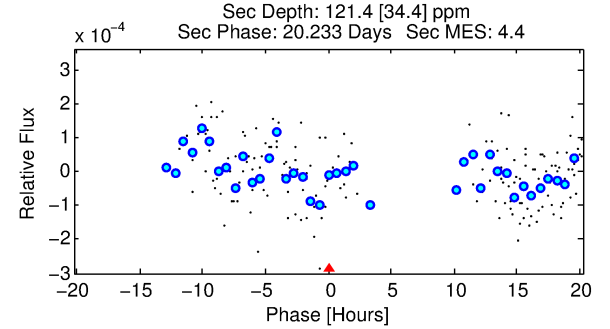
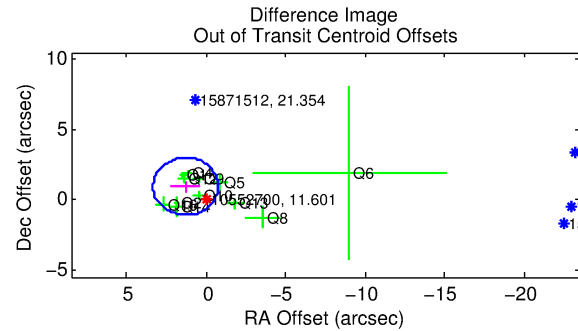
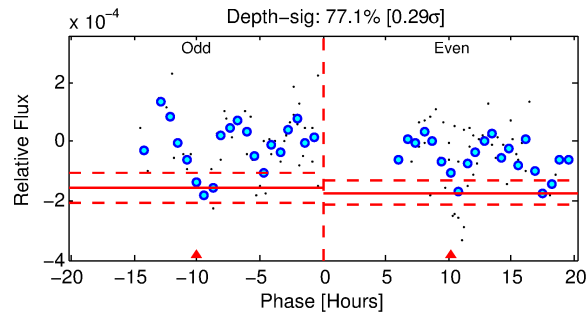
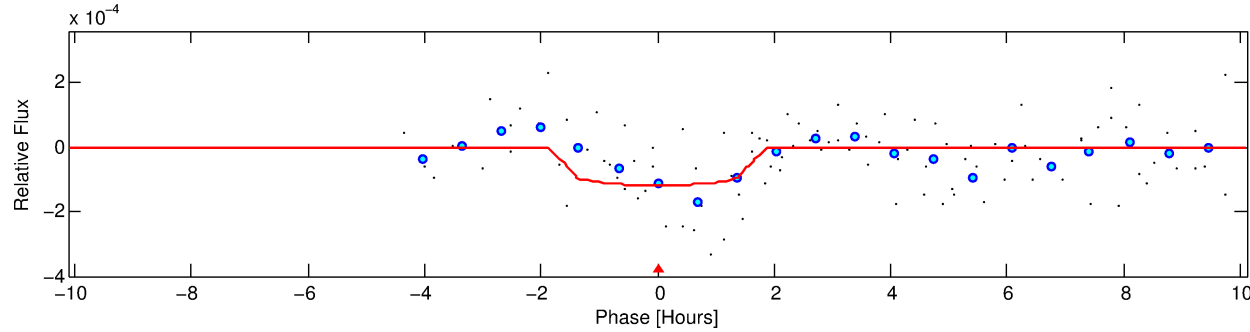
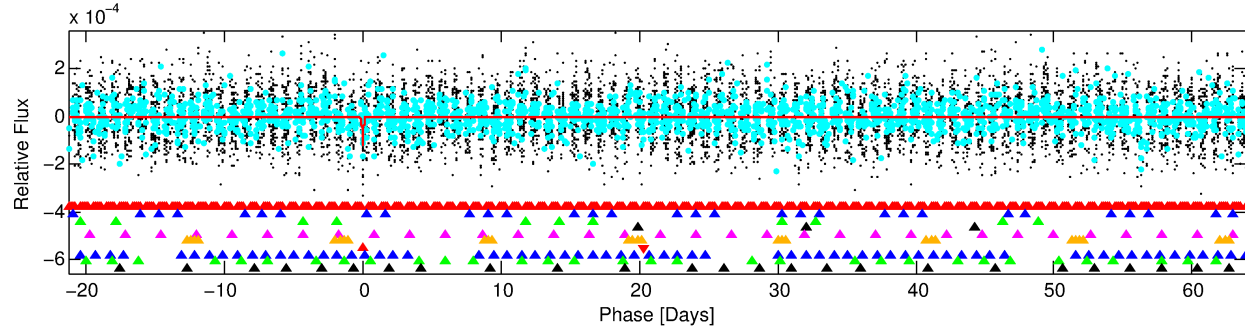
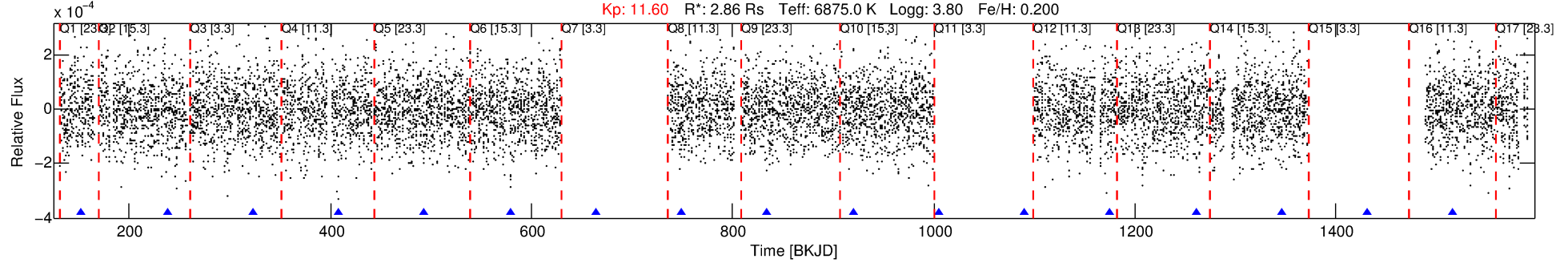
Ephemeris Match Information For 010552700-07

No Significant Match Found

DV One-Page Summary

KIC: 10552700 Candidate: 7 of 10 Period: 85.257 d
KOI: K07342 Corr: No Ephemeris Match

Kp: 11.60 R*: 2.86 Rs Teff: 6875.0 K Logg: 3.80 Fe/H: 0.200



DV Fit Results:

Period = 85.25685 [0.00314] d
Epoch = 152.4332 [0.0138] BKJD
Rp/R* = 0.0108 [0.0107]
a/R* = 129.49 [734.08]
B = 0.76 [3.24]
Seff = 74.85 [35.35]
Teff = 750 [89] K
Rp = 3.38 [3.51] Re
a = 0.4670 [0.1379] AU
Ag = 1277.56 [2614.67] [0.49σ]
Teffp = 6933 [3466] K [1.78σ]

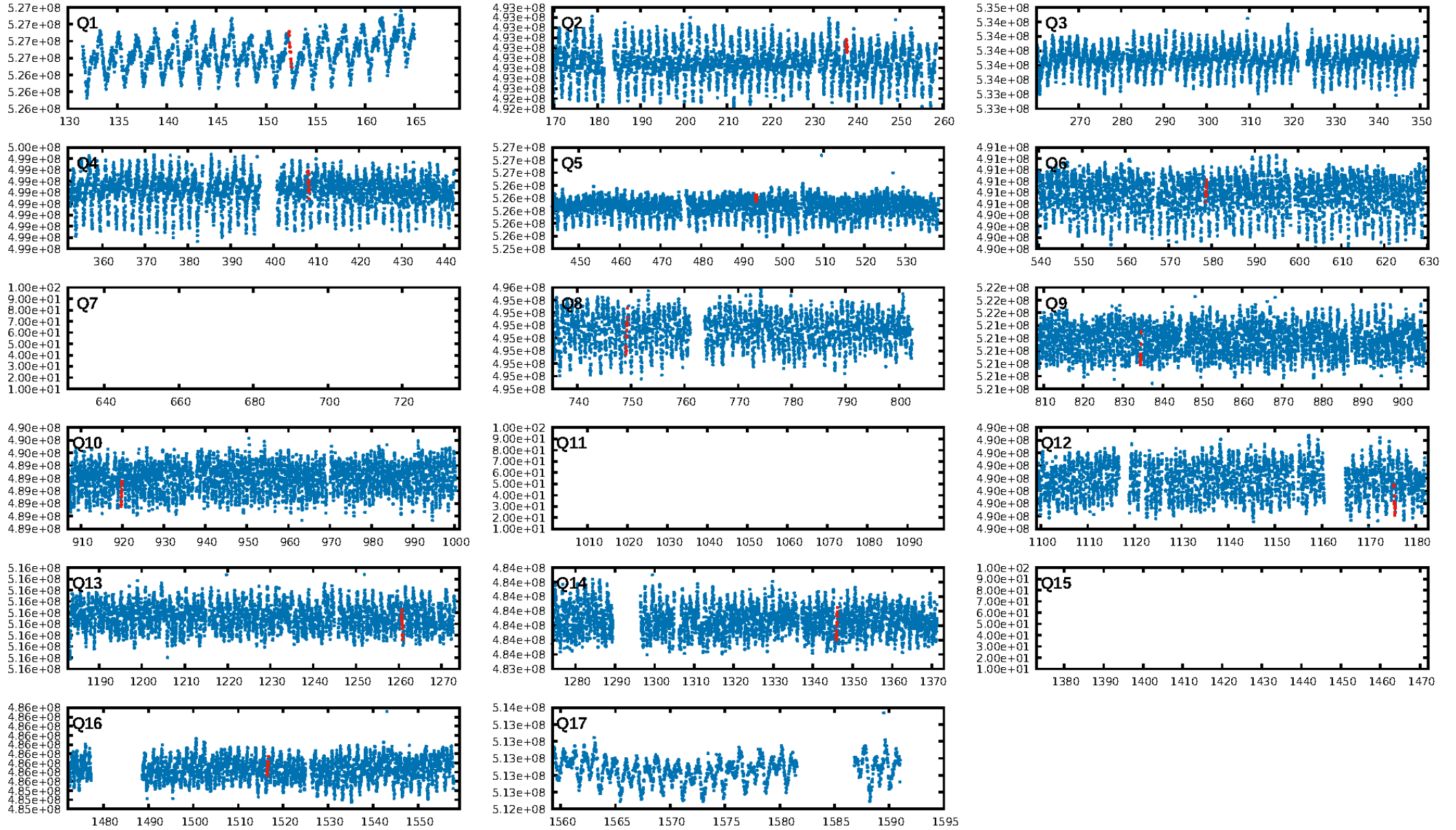
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [144.41σ]
LongPeriod-sig: 100.0% [285.72σ]
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 95.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: -0.037
Centroid-sig: 29.6%
Centroid-so: 1.393 arcsec [1.27σ]
OotOffset-rm: 1.619 arcsec [2.38σ]
OotOffset-st: 4/0/4/4 [12]
KicOffset-rm: 1.574 arcsec [2.08σ]
KicOffset-st: 4/0/4/4 [12]
DiffImageQuality-fgm: 0.33 [4/12]
DiffImageOverlap-fno: 0.08 [1/12]

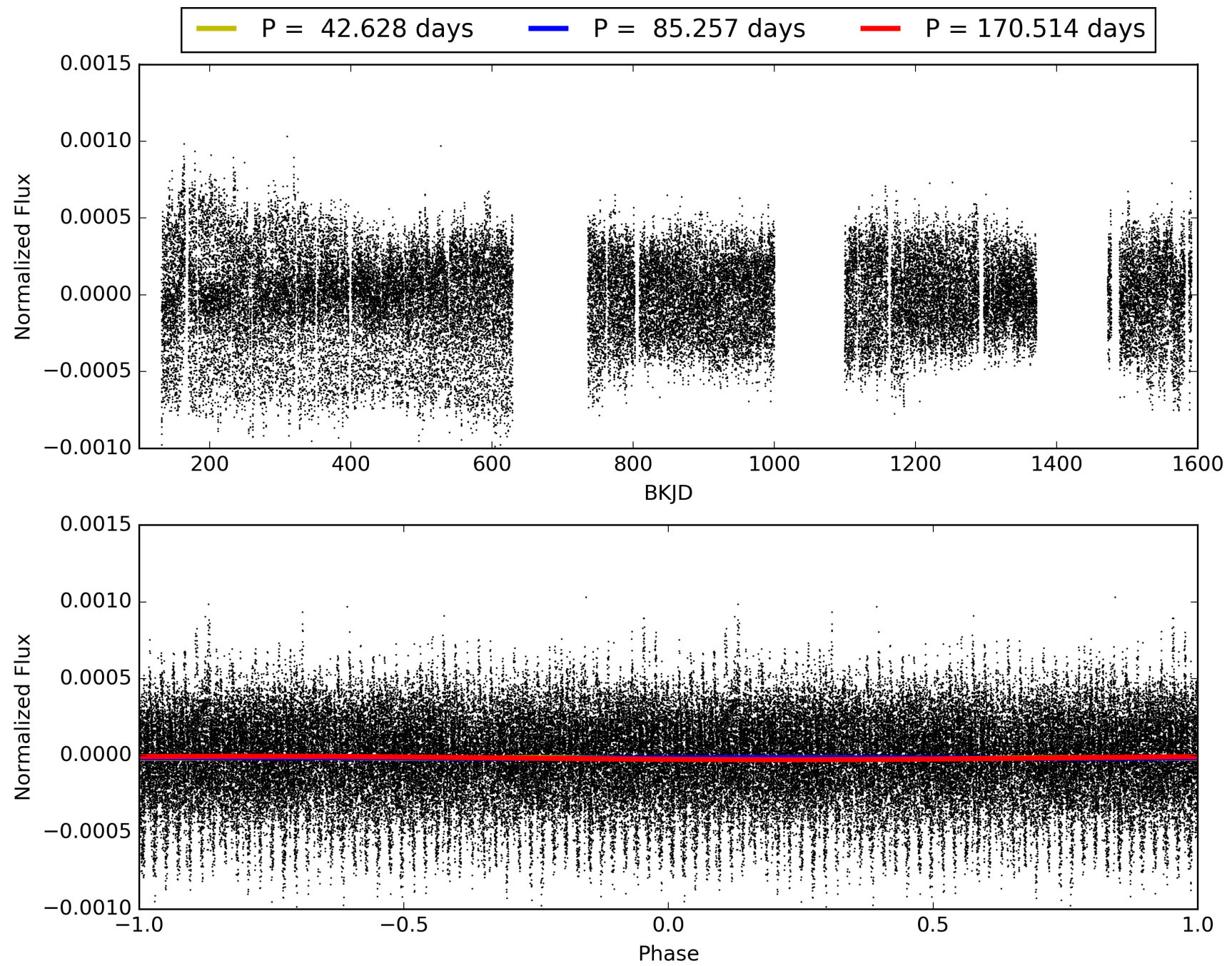
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:51:15 Z

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

TCE 010552700-07, PDC Light Curves

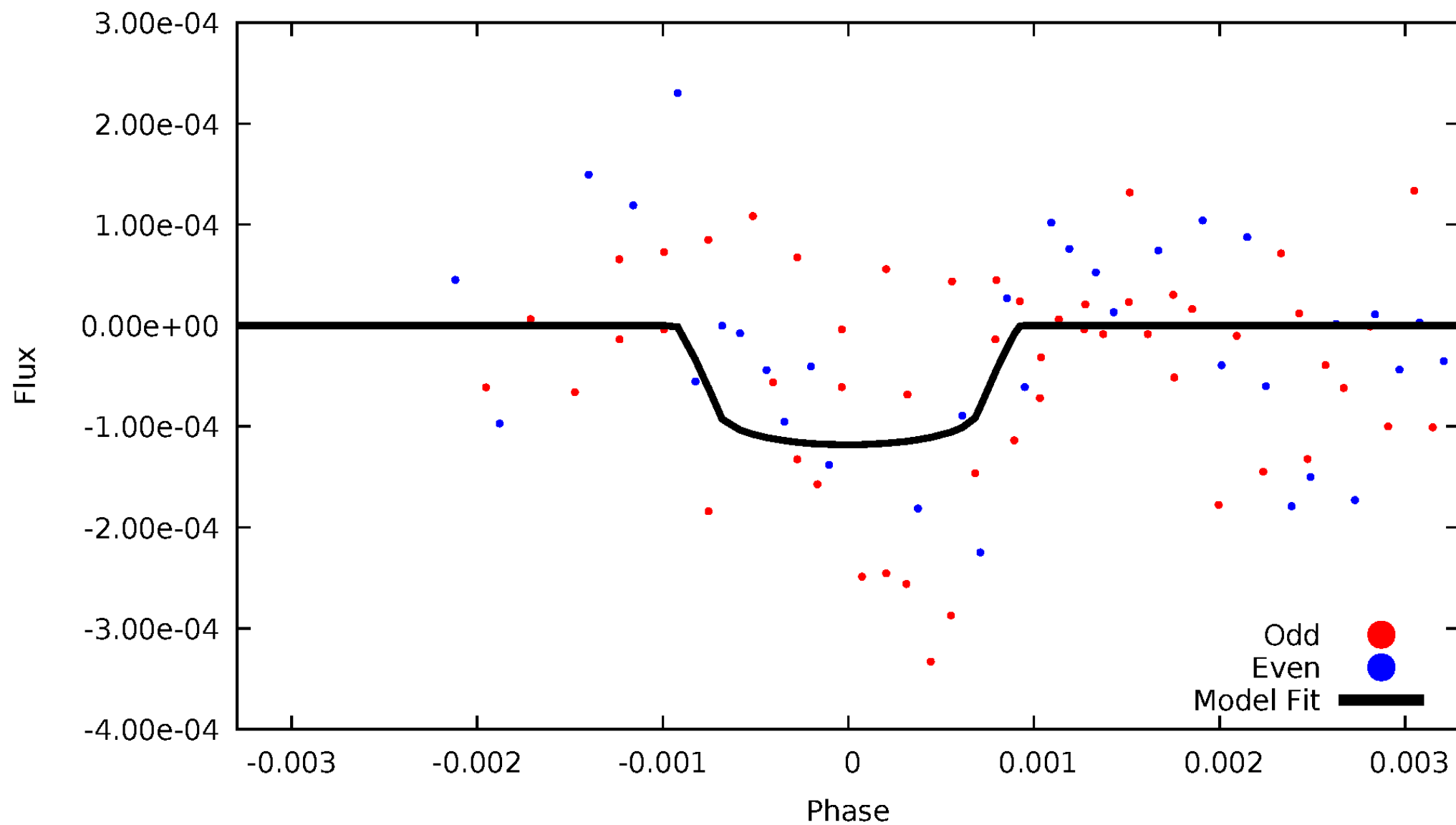


TCE 010552700-07



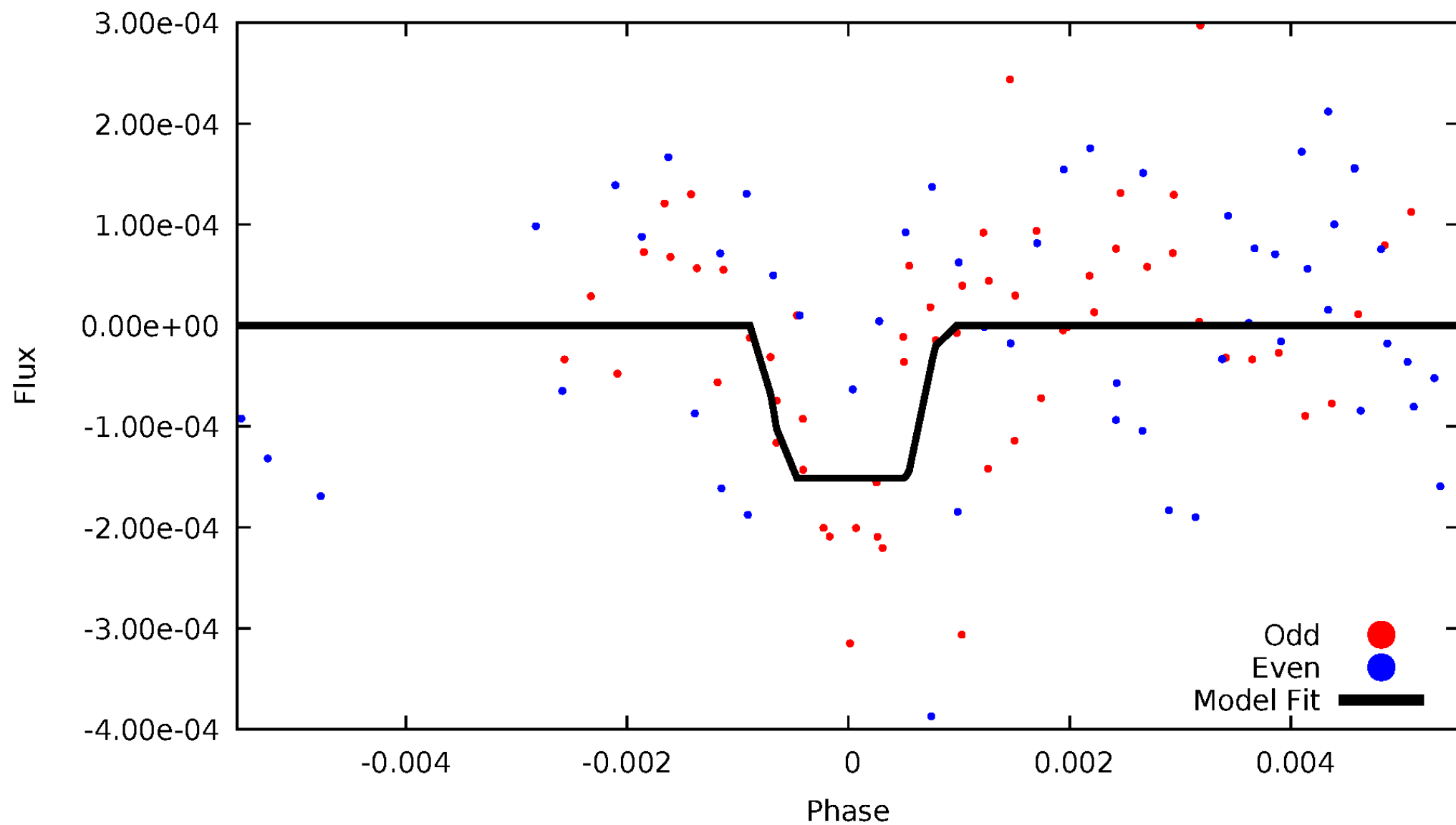
DV Odd/Even

TCE 010552700-07



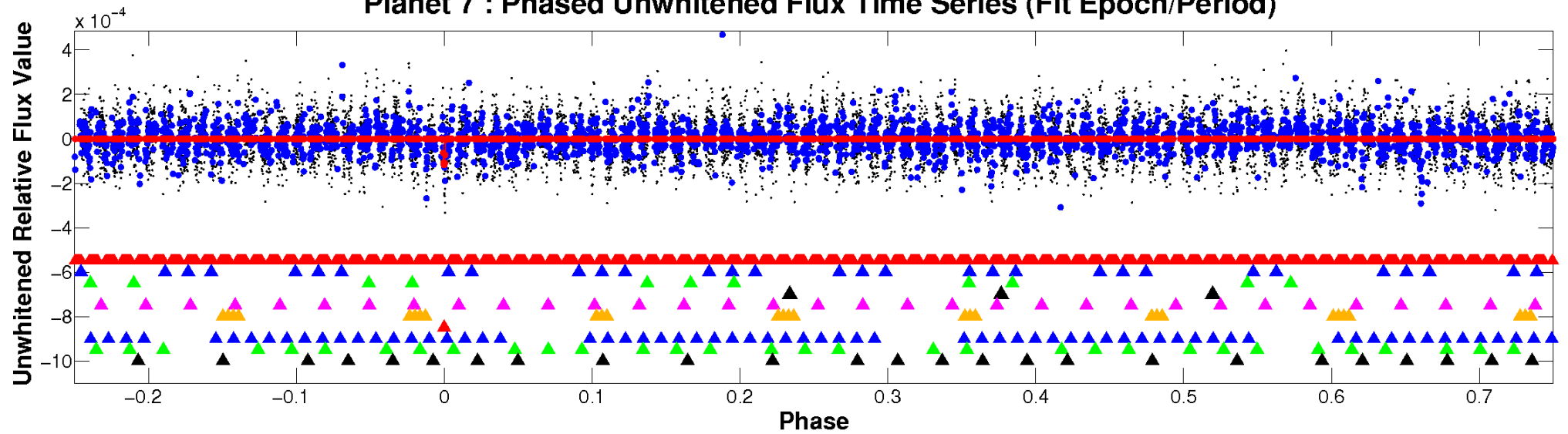
ALT Odd/Even

TCE 010552700-07

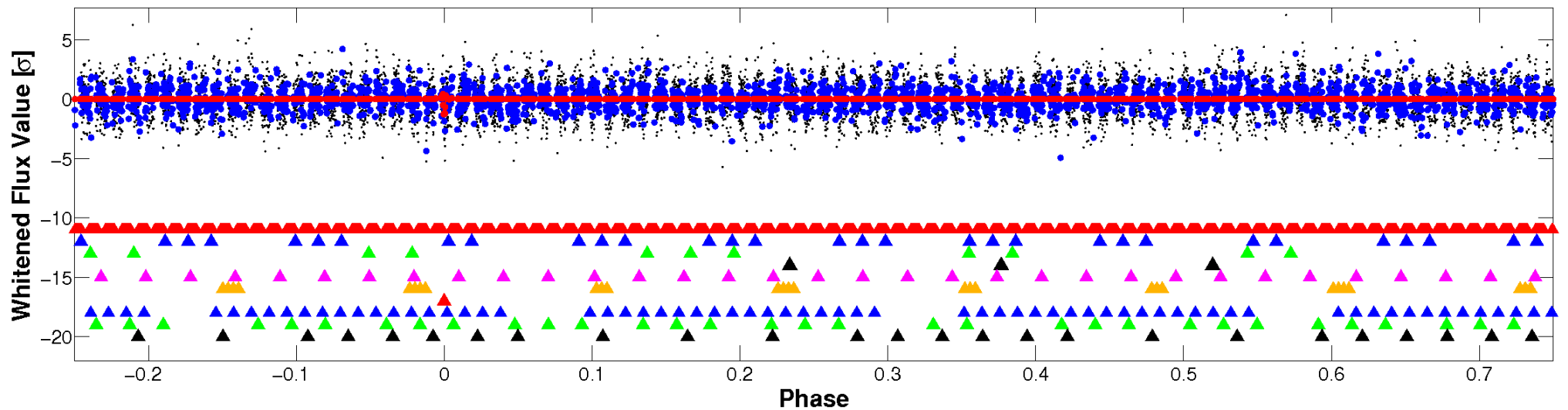


Non-Whitened Vs. Whitened Light Curve

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

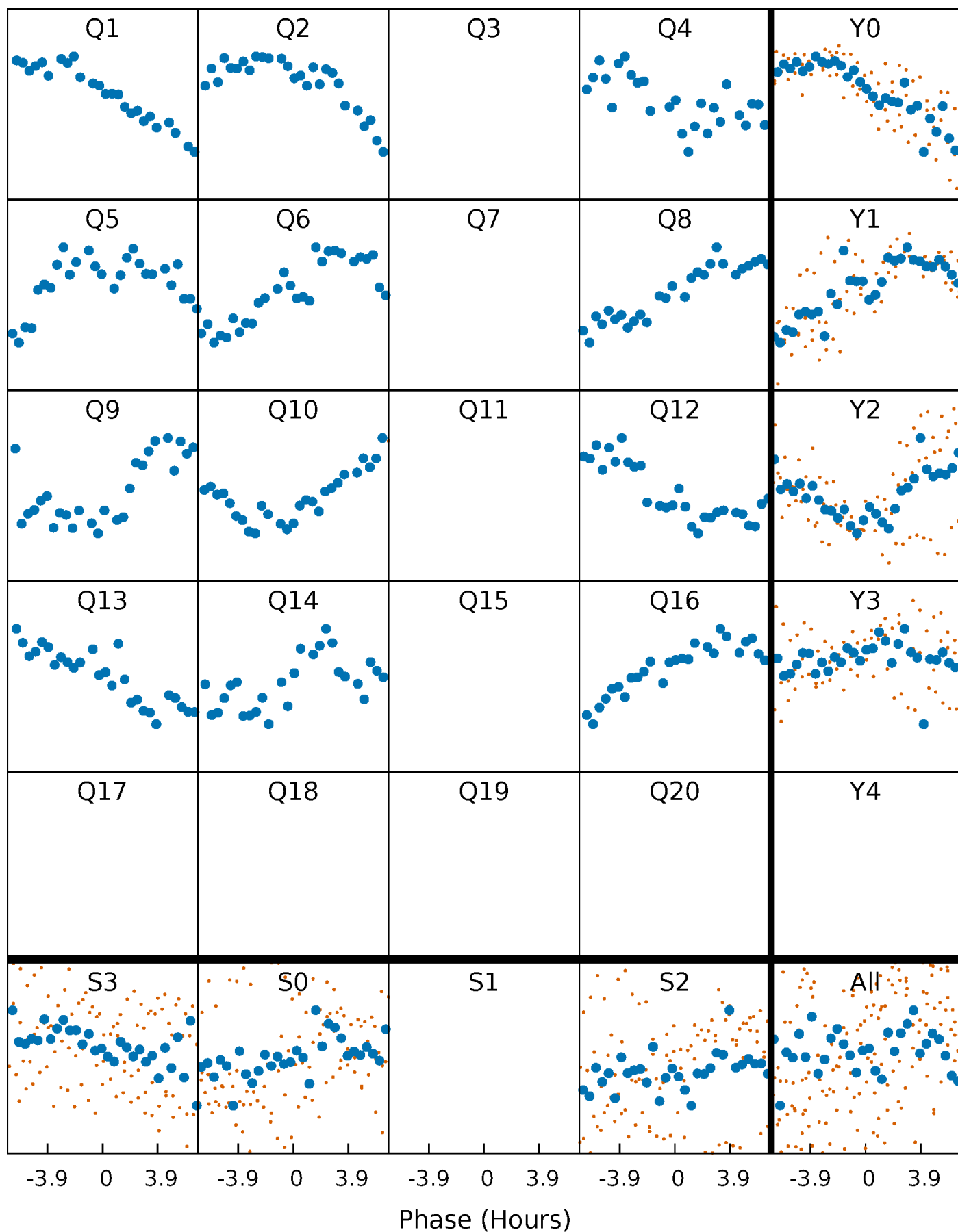


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



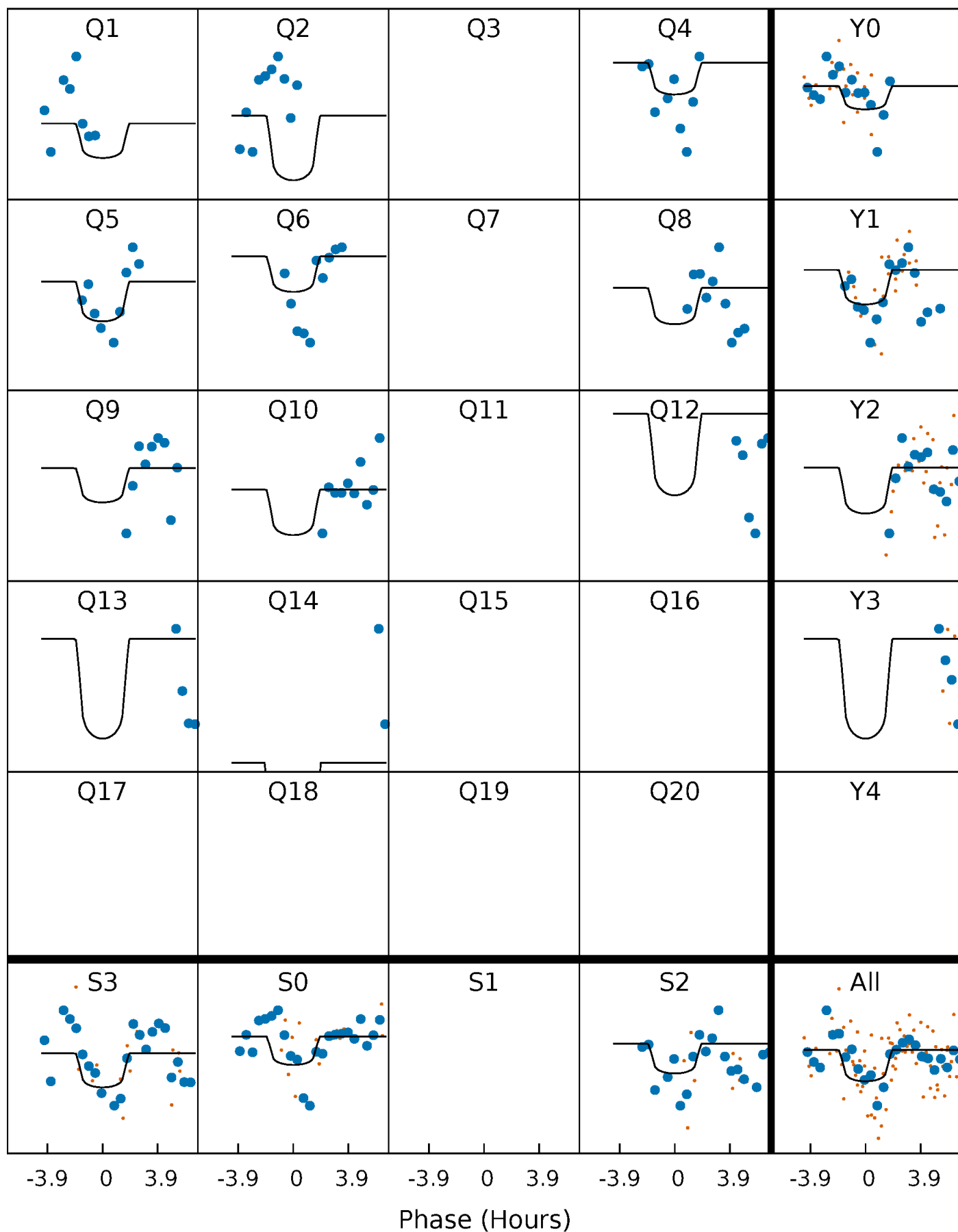
PDC Quarter-Phased Transit Curves

TCE 010552700-07 $P = 85.256851$ Days $T_0 = 152.433220$ (BKJD)



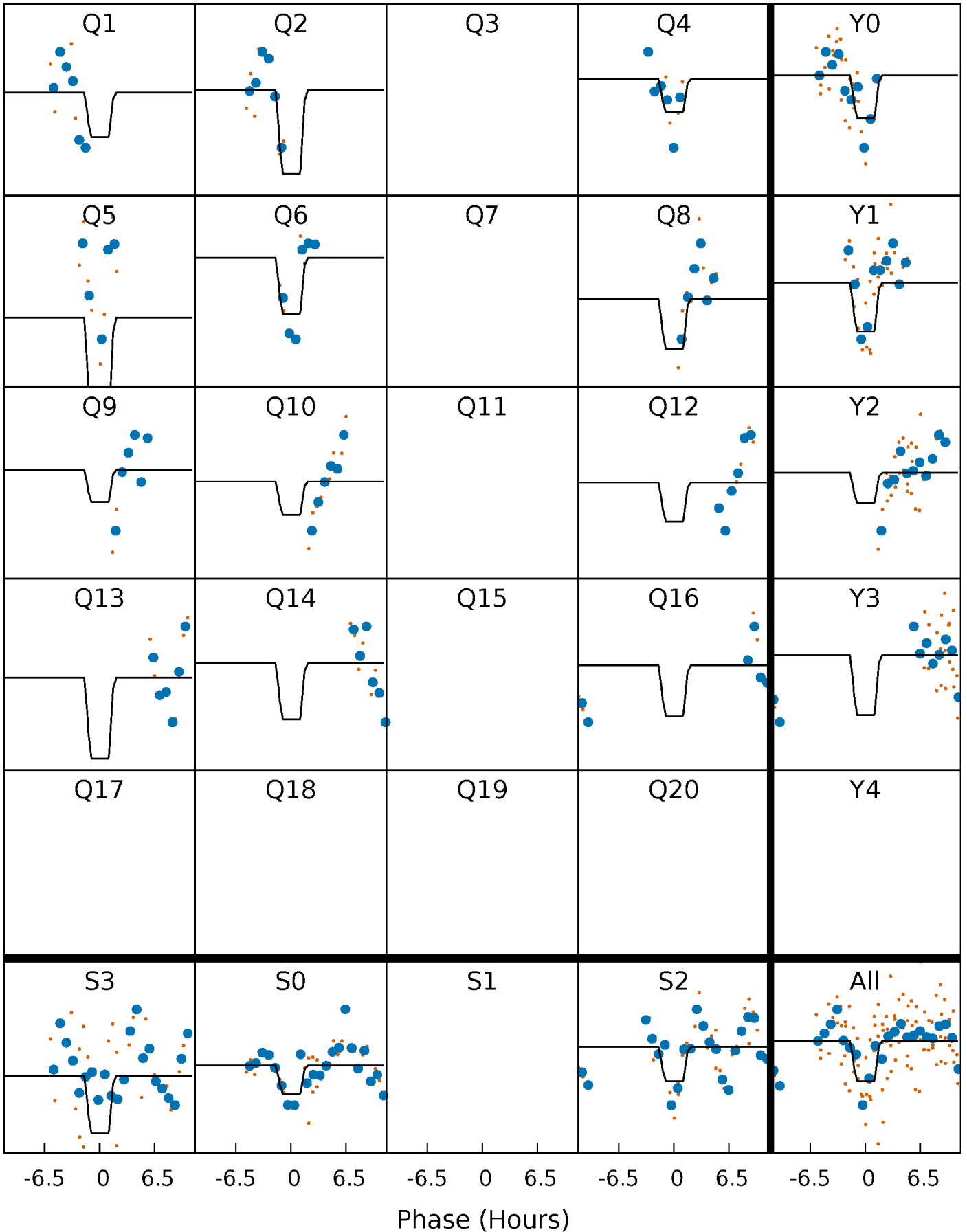
DV Quarter-Phased Transit Curves

TCE 010552700-07 P= 85.256851 Days $T_0=152.433220$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

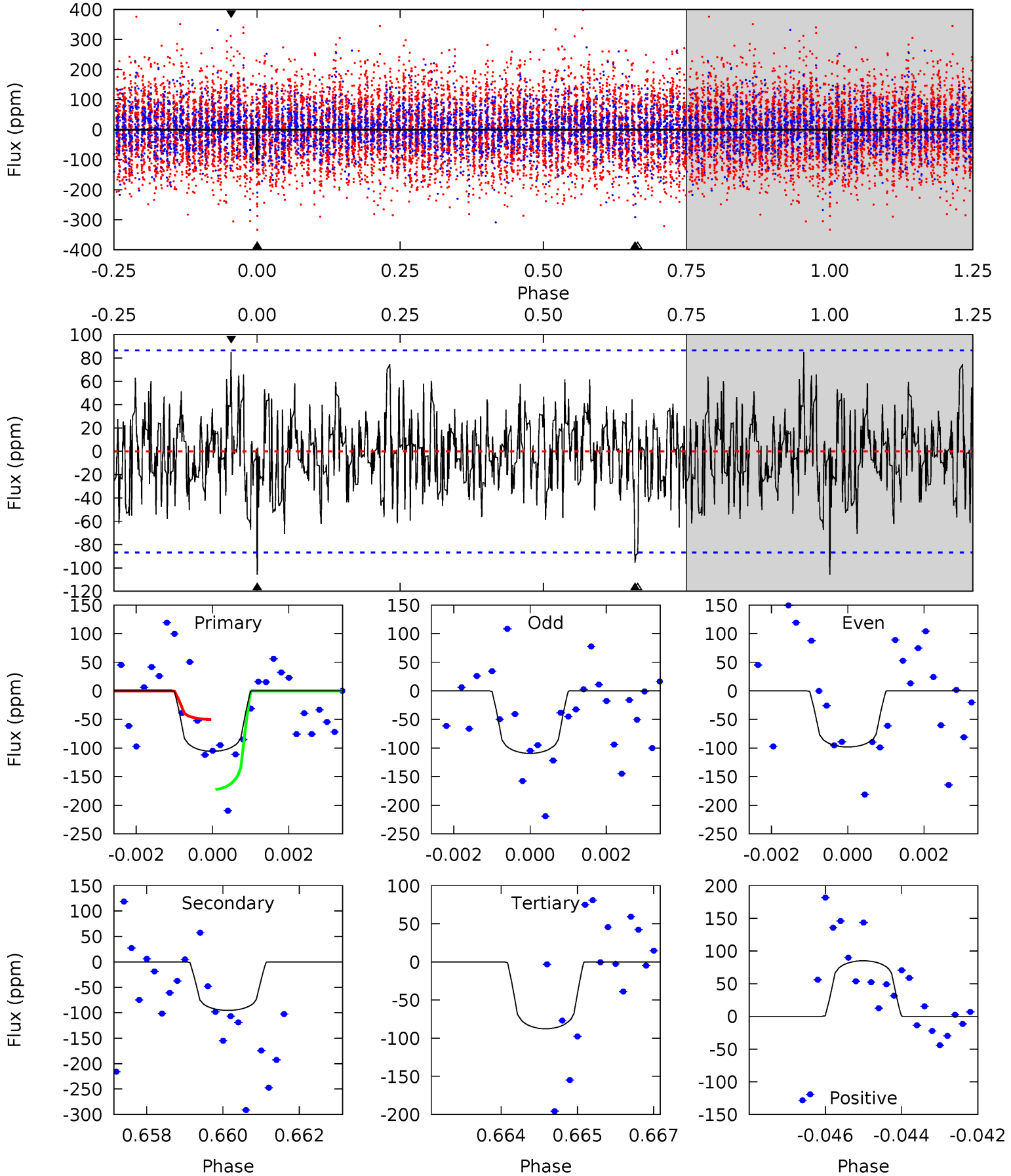
TCE 010552700-07 $P = 85.248921$ Days $T_0 = 152.493510$ (BKJD)



DV Model-Shift Uniqueness Test

010552700-07, P = 85.256851 Days, E = 67.176369 Days

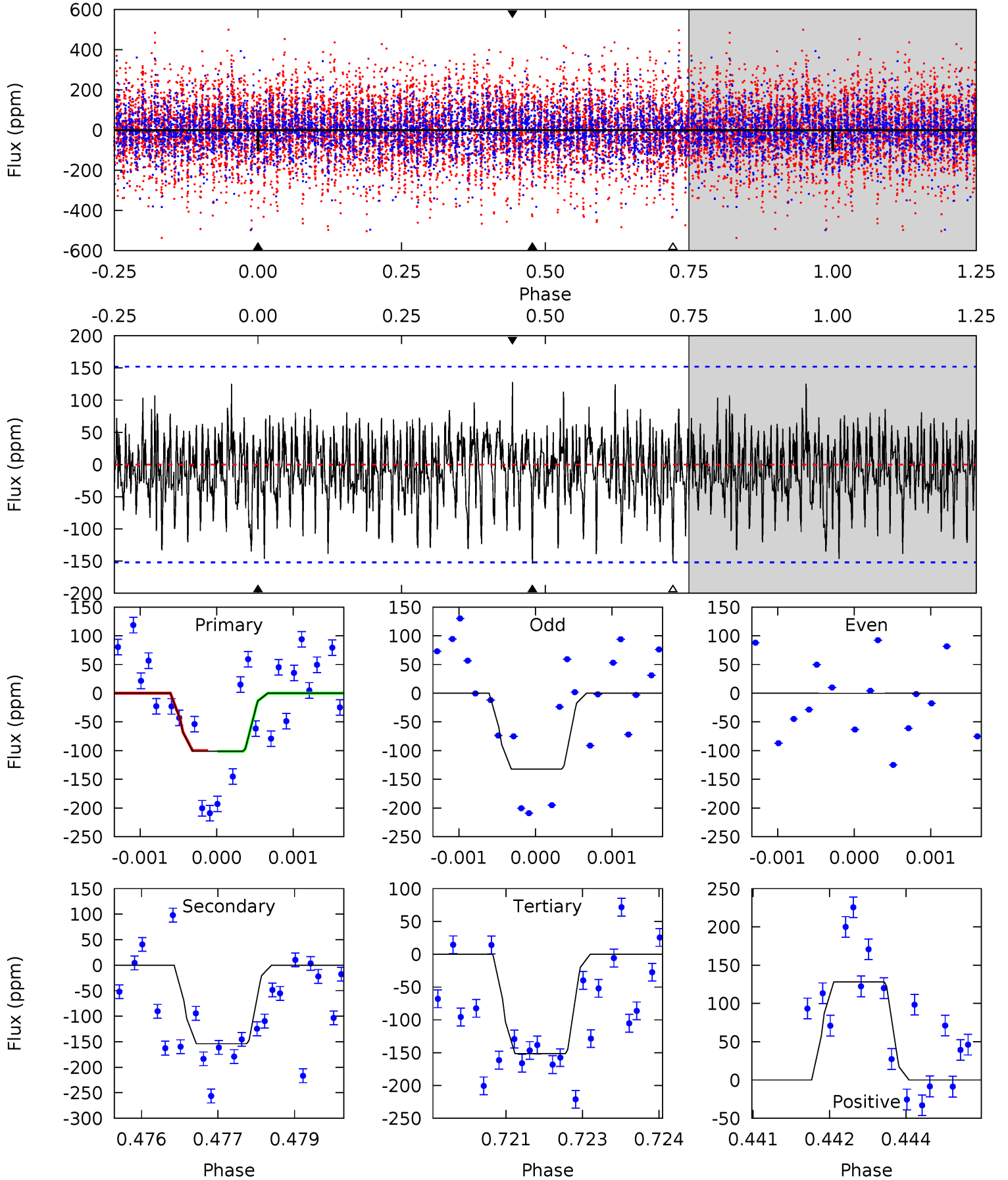
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.52	5.88	5.40	5.24	5.34	3.11	1.56	1.12	1.28	0.47	0.63	0.34	1.14	0.45	3.77



Alt Model-Shift Uniqueness Test

010552700-07, P = 85.248921 Days, E = 67.244589 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.57	5.44	5.36	4.54	5.38	3.18	1.62	-1.79	-0.97	0.08	0.91	2.12	0.82	0.45	0.03



Stellar Parameters For KIC 010552700

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6875^{+164}_{-226}	$3.798^{+0.259}_{-0.111}$	$0.200^{+0.200}_{-0.300}$	$2.856^{+0.503}_{-0.935}$	$1.868^{+0.180}_{-0.361}$	$0.113^{+0.194}_{-0.039}$
	+2%/-3%	+7%/-3%	+100%/-150%	+18%/-33%	+10%/-19%	+172%/-35%
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 010552700-07 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-95 ± 16	$3.91^{+2.98}_{-2.38}$	1035^{+60}_{-87}	5892^{+4151}_{-1303}	728^{+4091}_{-495}
Alt.	-154 ± 28	$4.22^{+3.05}_{-2.60}$	1035^{+63}_{-84}	6368^{+5484}_{-1412}	1004^{+5632}_{-648}

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 $A_{obs} \gg 1.0$

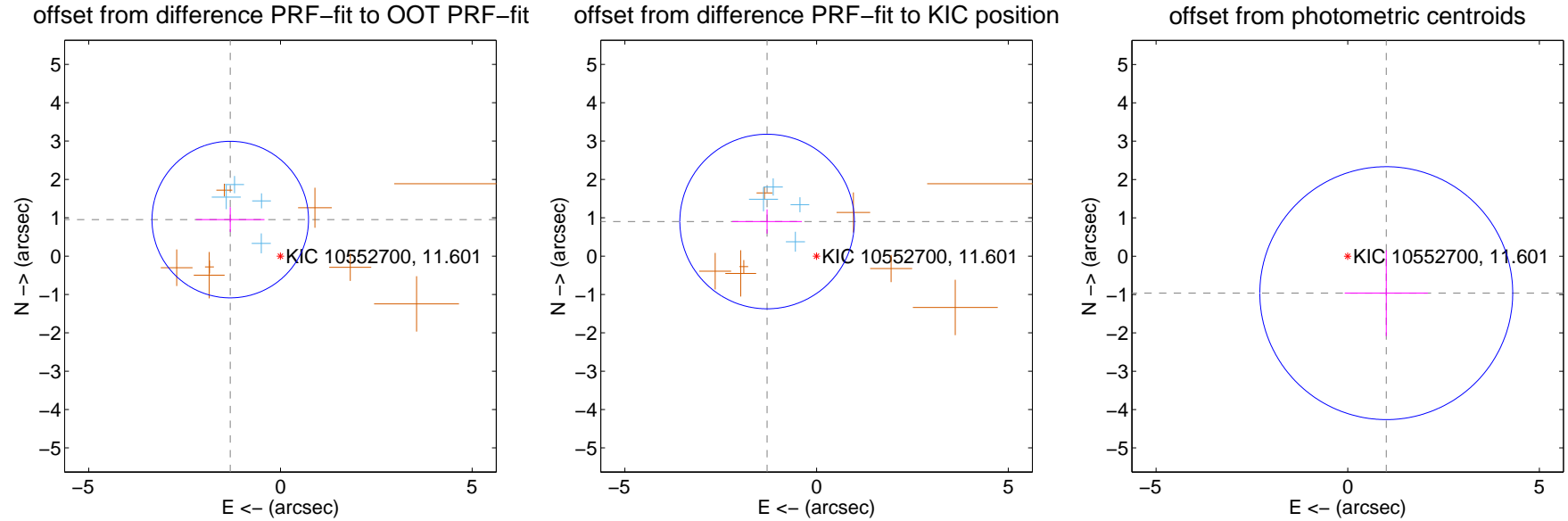
DV Centroid Data

Supplemental centroid analysis for 010552700-07. **Kepler magnitude: 11.60**. Transit SNR 5.84

There are 4 quarters with good PRF difference image offsets

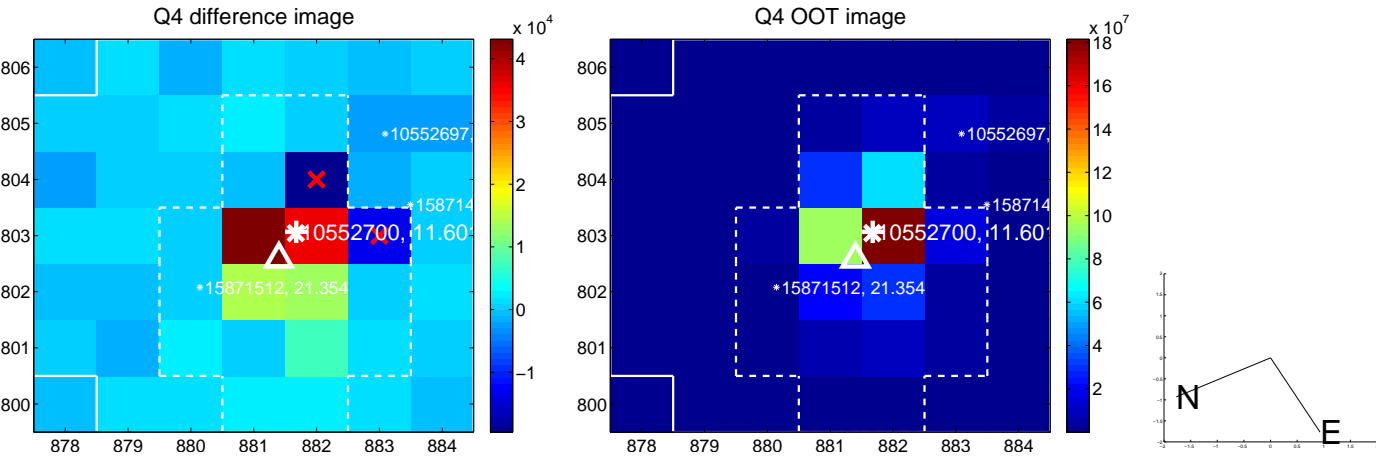
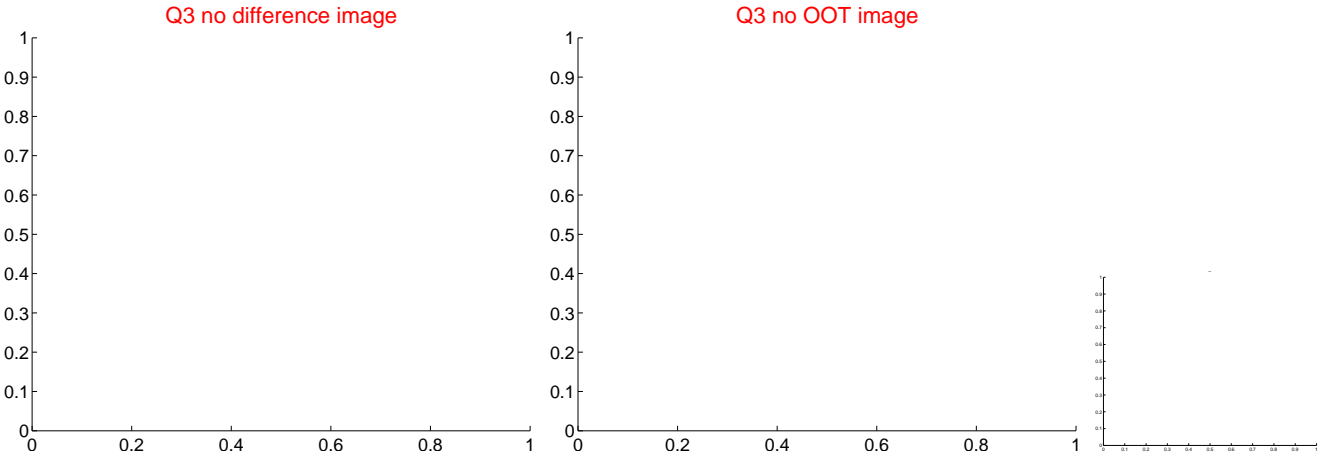
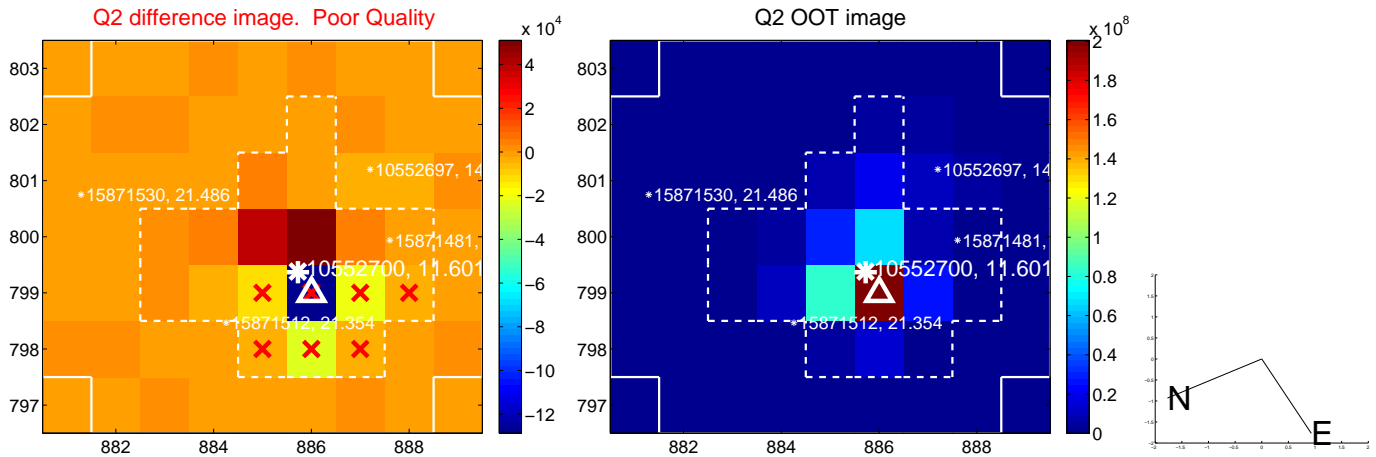
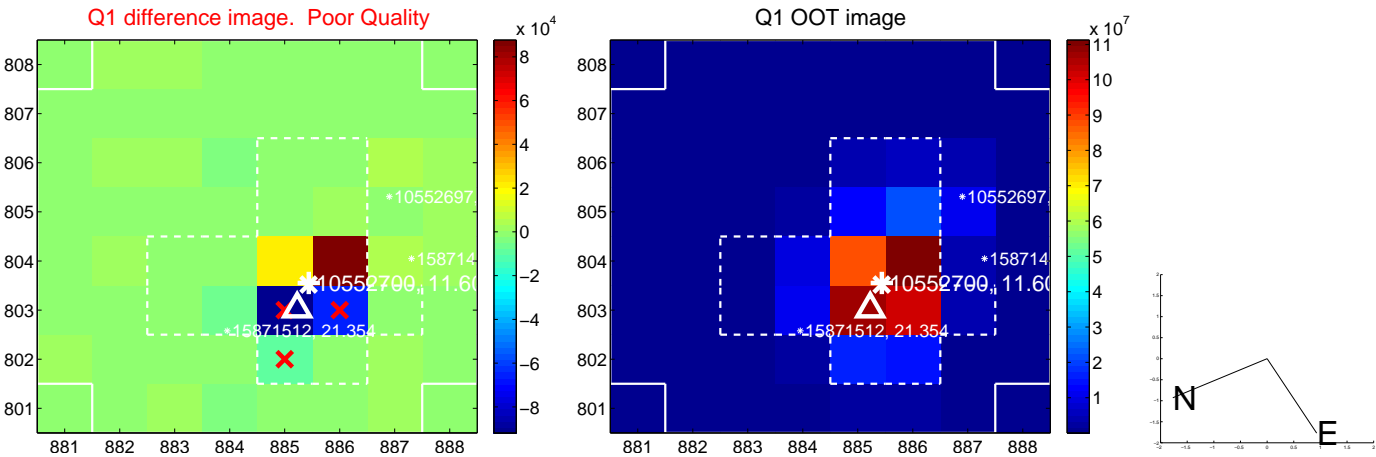
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.619 ± 0.680	2.38	1.309 ± 0.893	0.953 ± 0.322
PRF-fit source offset from KIC position	1.574 ± 0.758	2.08	1.290 ± 0.908	0.902 ± 0.315
photometric centroid source offset	1.39 ± 1.10	1.27	-1.01 ± 1.08	-0.96 ± 1.12

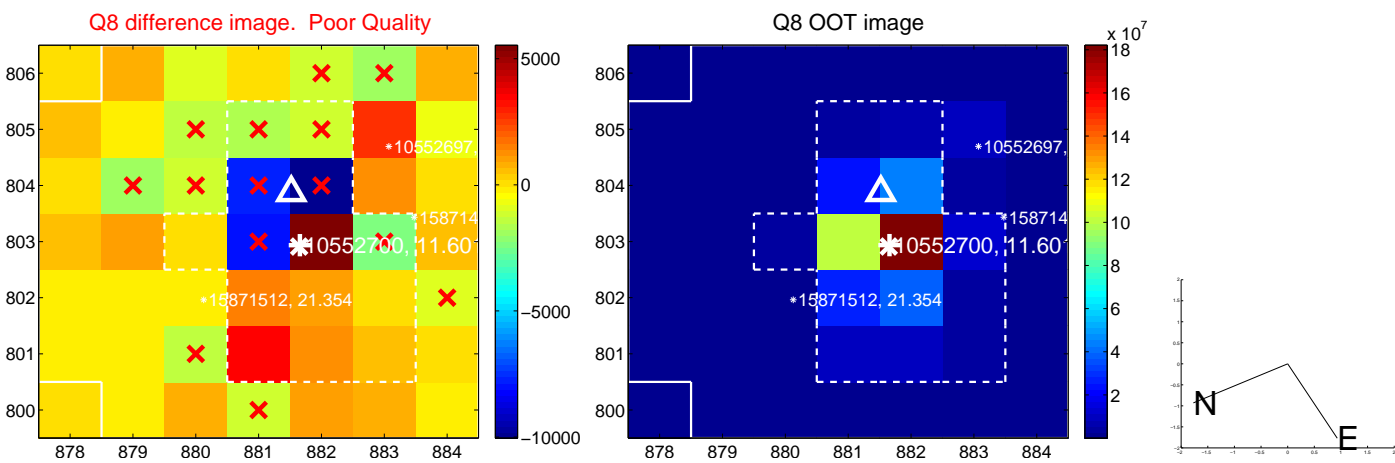
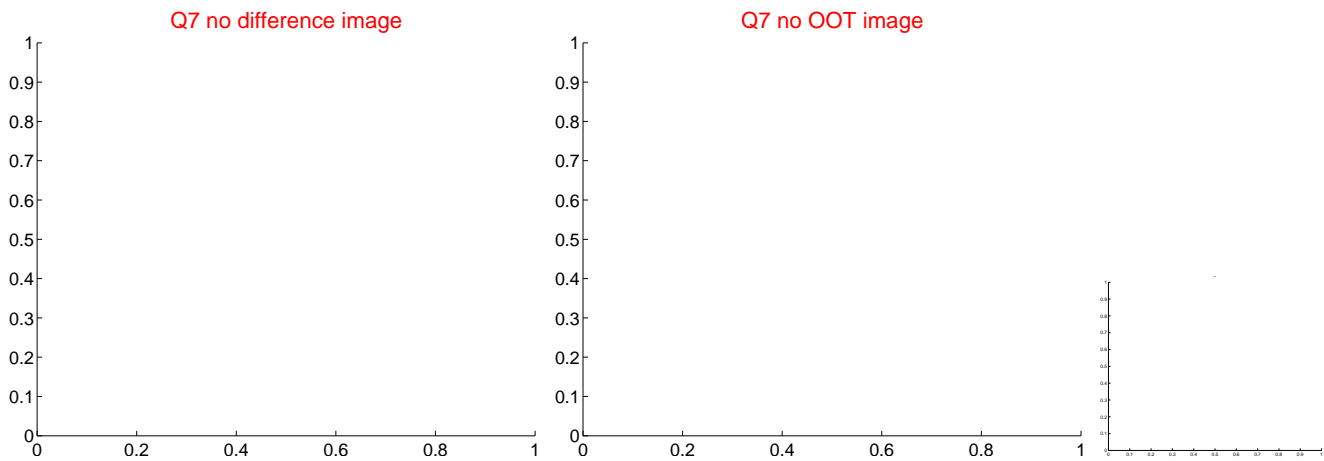
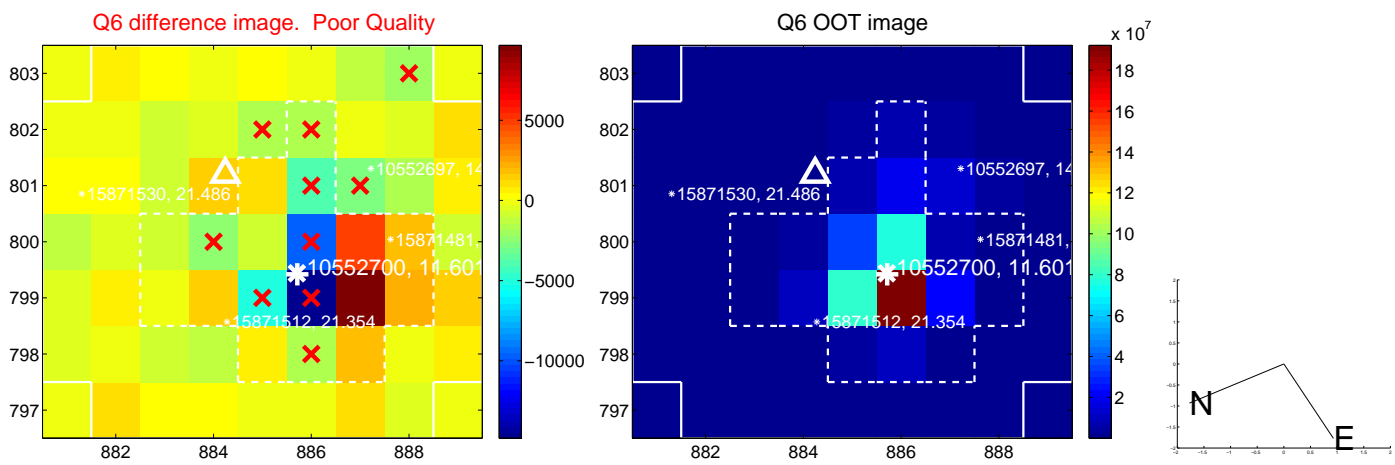
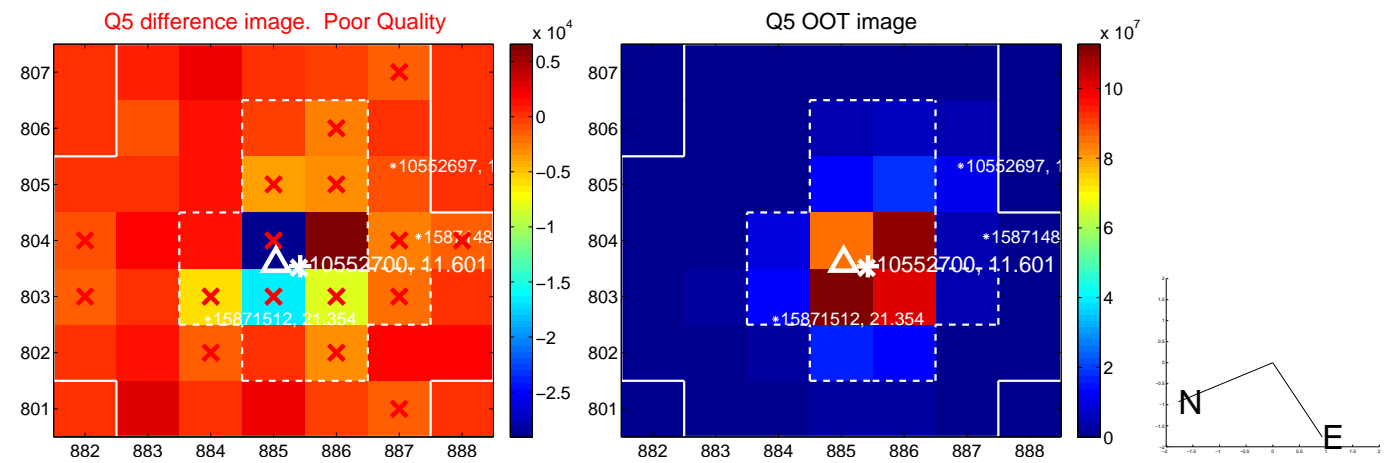


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

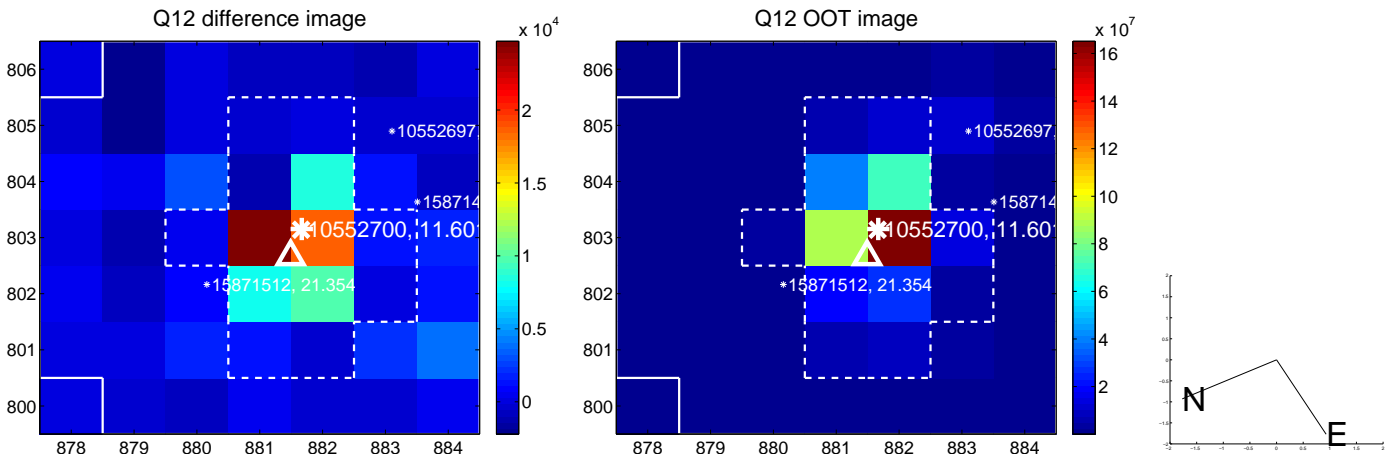
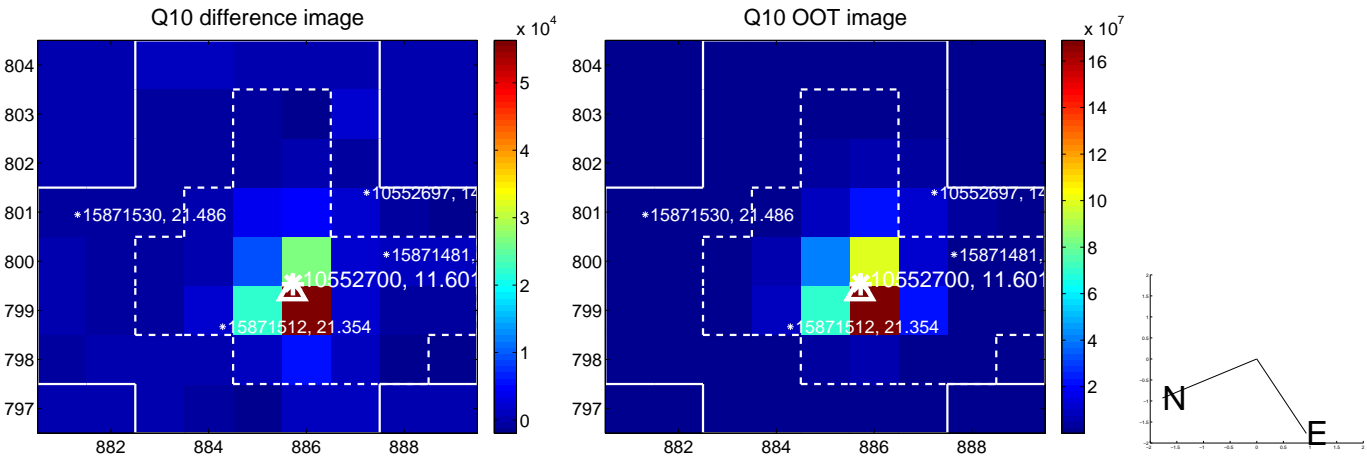
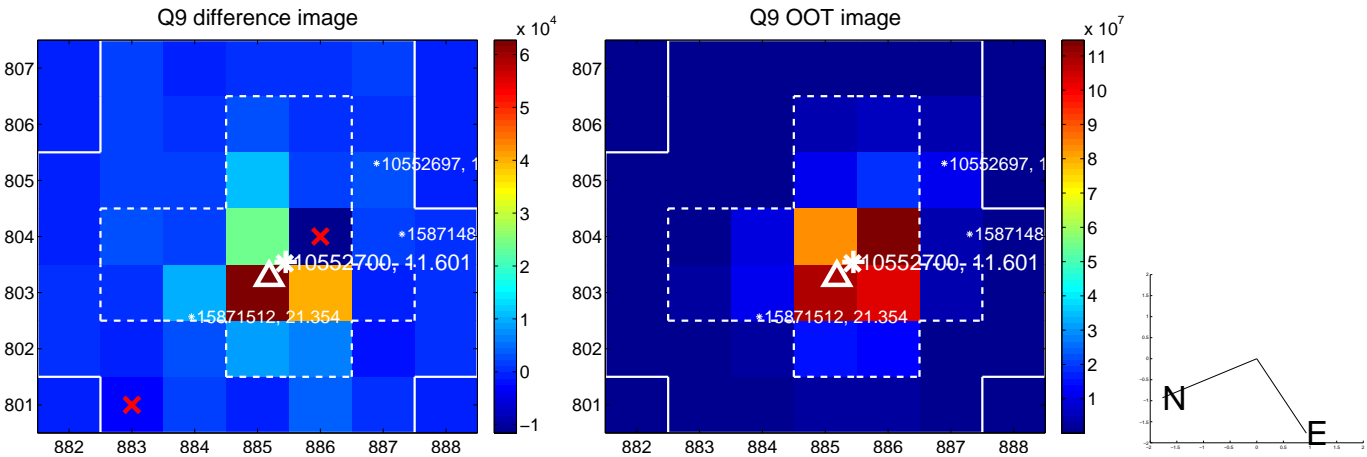
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



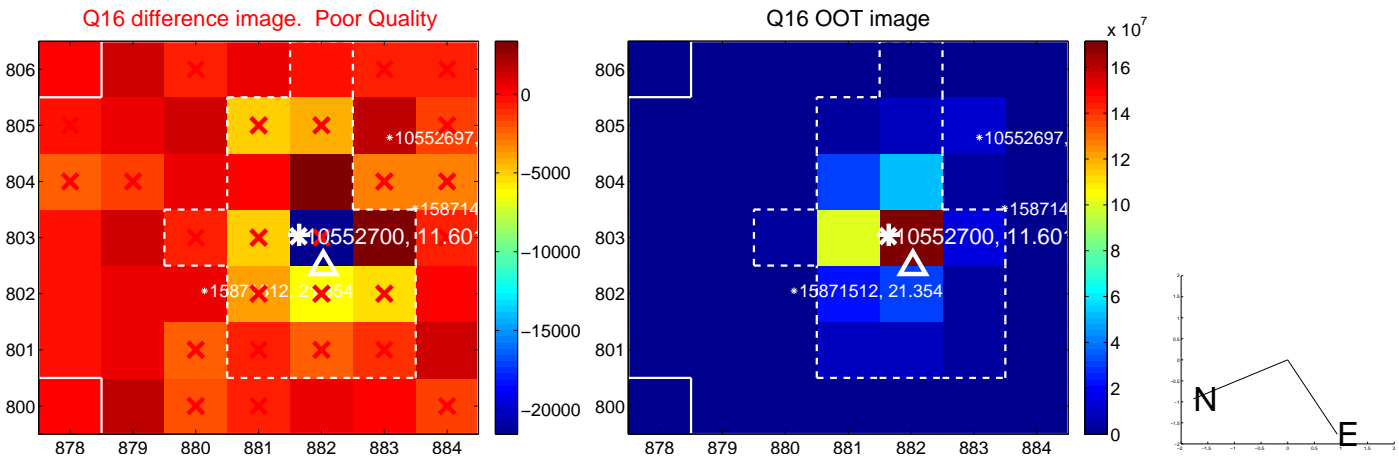
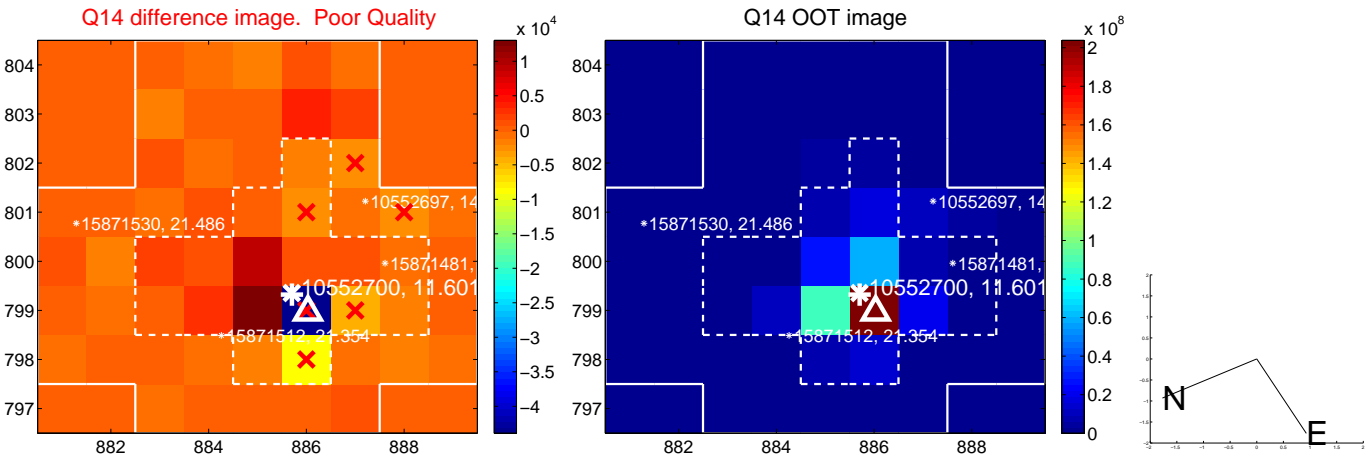
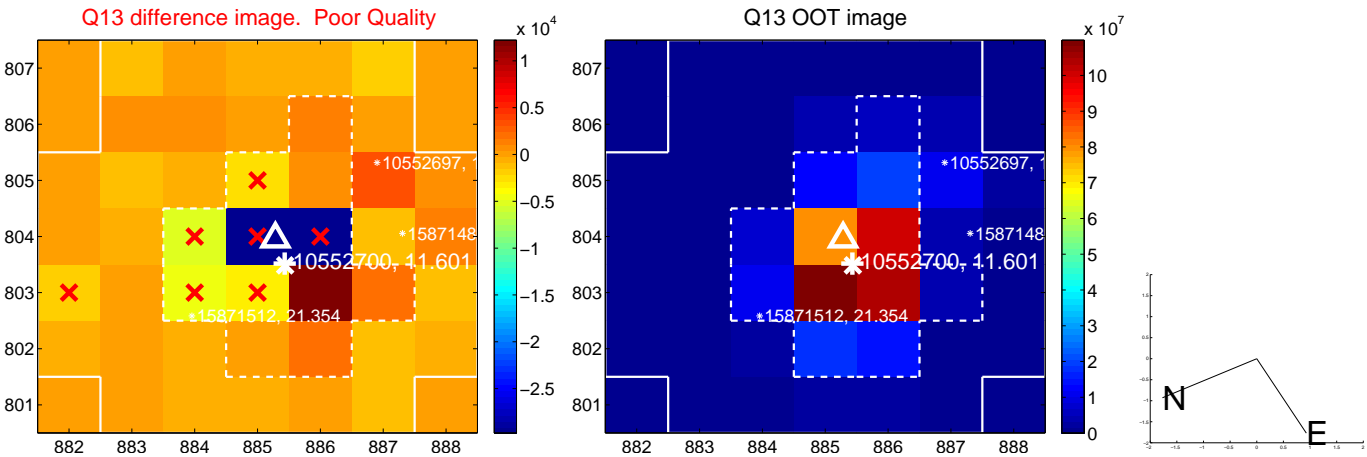
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



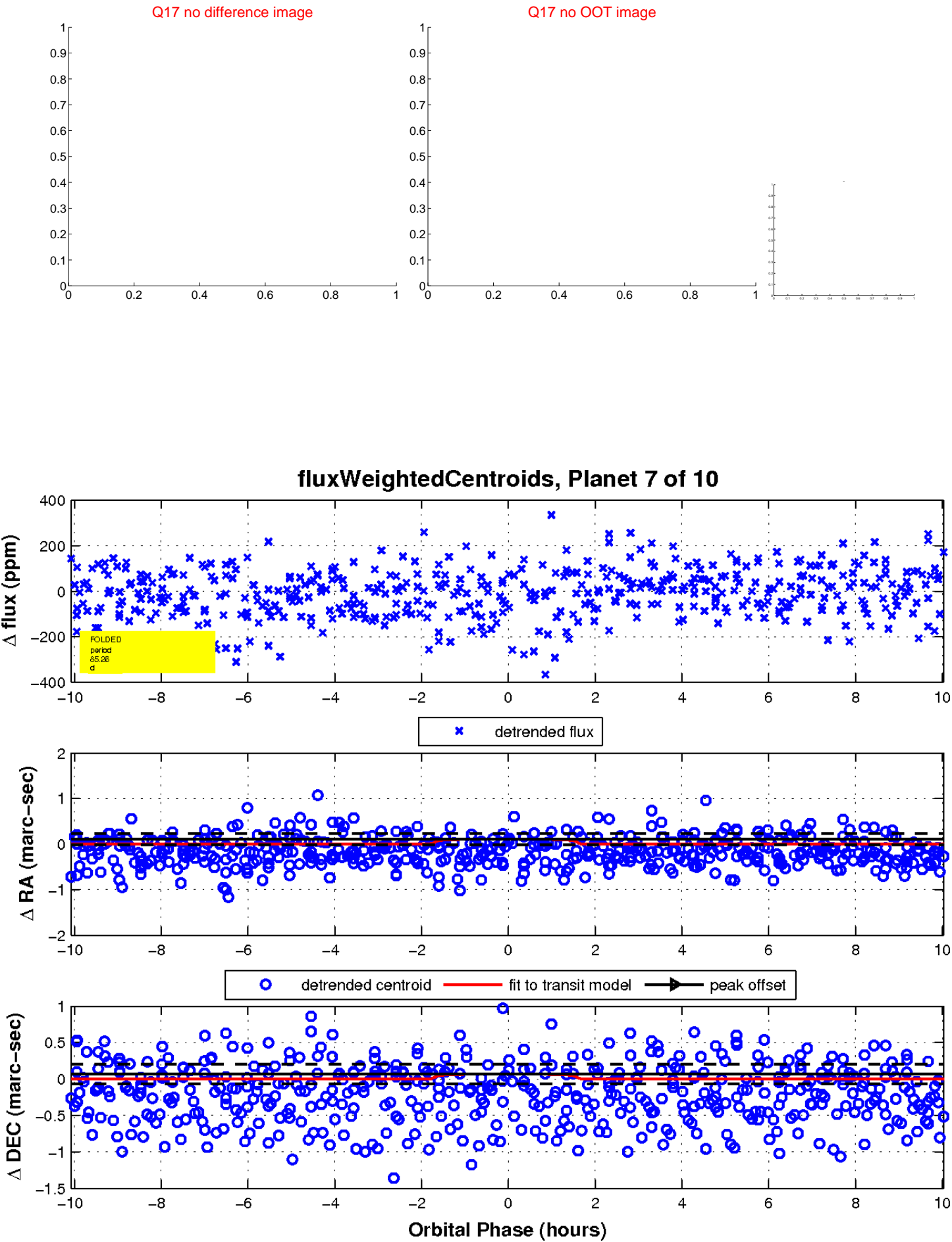
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



This astronomical image shows a field of stars against a dark background. A blue grid is overlaid on the image. Green text labels provide coordinates for the grid lines. The horizontal axis (Right Ascension) is labeled at the top with values 19:52:00.0, 59.0, 58.0, 57.0, 56.0, and 51:55. The vertical axis (Declination) is labeled on the right with values 5:40.0, 50.0, 47:46:00.0, 10.0, 20.0, and 30.0. A prominent, bright star is located near the center of the grid, at approximately RA 57.5 and Dec 10.0. Other stars of varying brightness are scattered throughout the field.

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})
010552700-01	OBS	7342.01	0.947637	131.958058	3.9	5.827	10.7	2.8	2.86	6875	0.66	30174.11
010552700-02	OBS	No	46.382972	162.859199	245.5	1.305	9.4	12.1	2.86	6875	5.08	168.53
010552700-03	OBS	No	135.910835	169.141834	206.3	2.598	8.9	7.9	2.86	6875	4.78	40.19
010552700-04	OBS	No	414.093817	367.252579	237.0	16.216	8.1	7.3	2.86	6875	5.10	9.10
010552700-05	OBS	No	43.917309	161.103293	147.1	1.700	8.6	8.6	2.86	6875	3.99	181.26
010552700-06	OBS	No	53.247872	151.349957	91.0	7.054	8.8	6.3	2.86	6875	2.96	140.20
010552700-07	OBS	No	85.256851	152.433220	118.1	3.369	8.6	5.8	2.86	6875	3.38	74.85
010552700-08	OBS	No	21.570584	139.269988	71.5	2.686	8.6	6.6	2.86	6875	2.83	467.74
010552700-09	OBS	No	46.327798	145.577777	109.3	1.551	8.6	5.5	2.86	6875	3.38	168.80
010552700-10	OBS	No	58.468746	146.900902	150.9	2.910	7.9	7.3	2.86	6875	4.03	123.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010552700-01	OBS	FP	0.00	1	0	0	0	LPP_DV
010552700-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
010552700-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
010552700-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
010552700-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV
010552700-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
010552700-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET—HALO_GHOST
010552700-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
010552700-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
010552700-10	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST

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

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

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

Ephemeris Match Information For 010552700-08

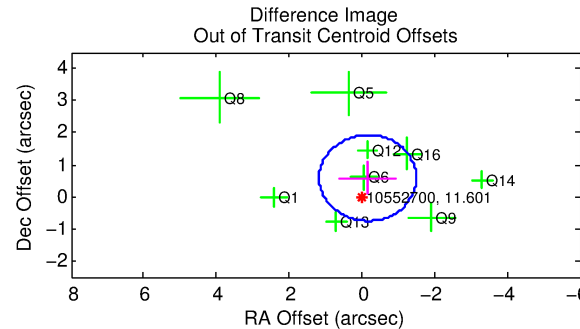
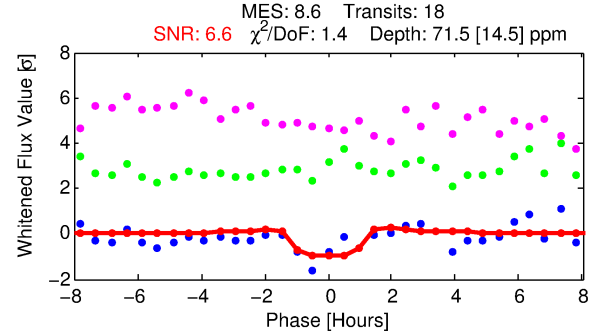
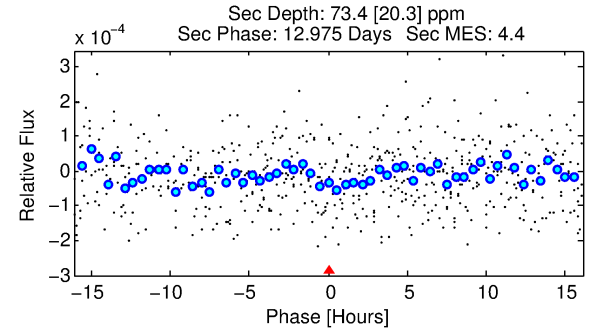
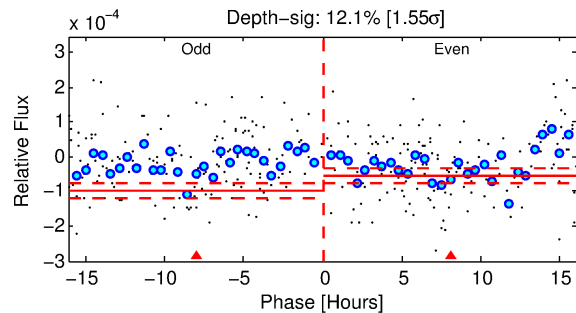
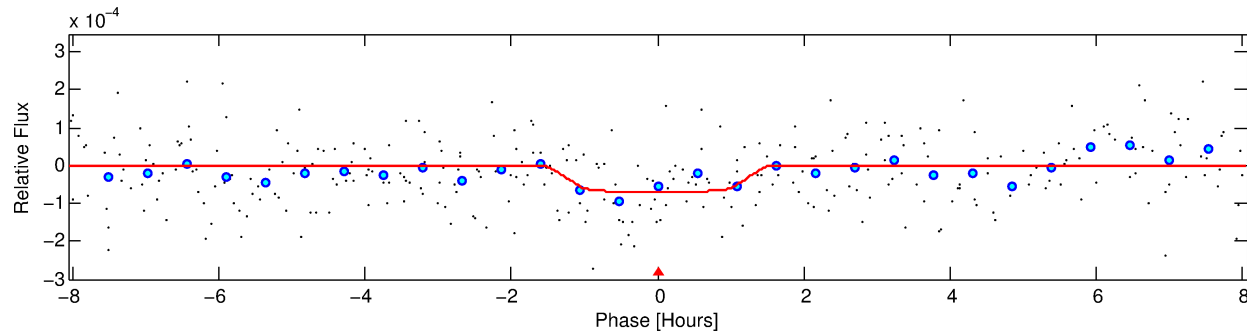
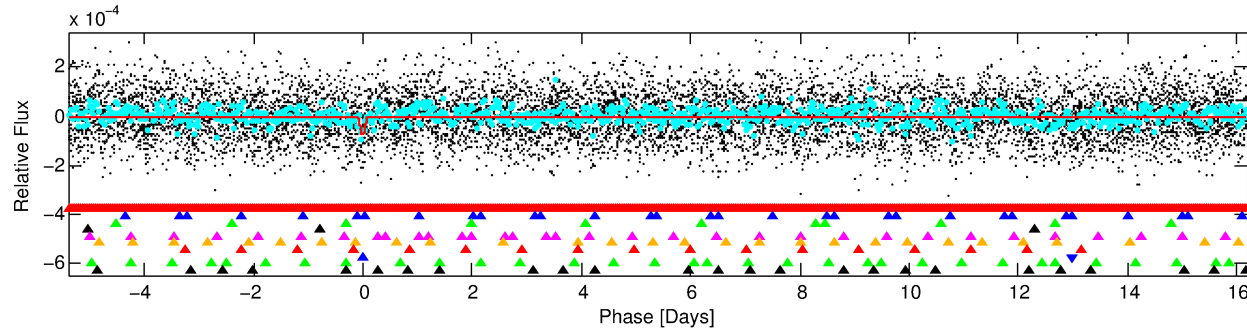
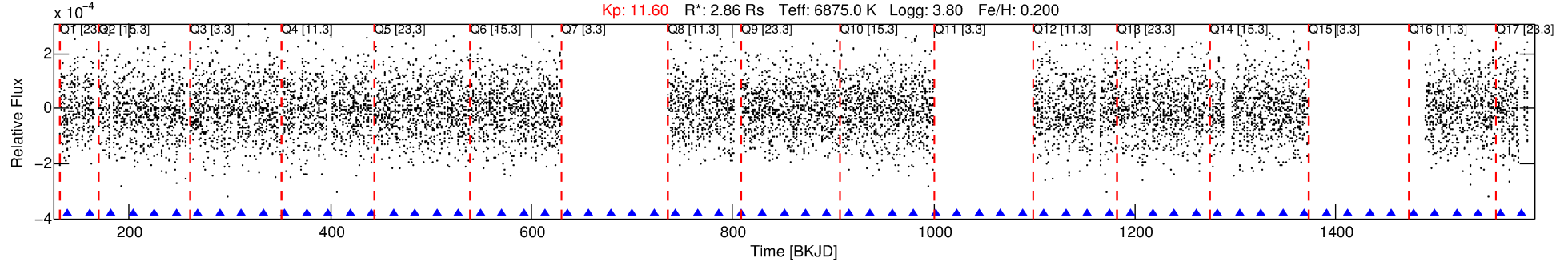
No Significant Match Found

DV One-Page Summary

KIC: 10552700 Candidate: 8 of 10 Period: 21.571 d

KOI: K07342 Corr: No Ephemeris Match

Kp: 11.60 R*: 2.86 Rs Teff: 6875.0 K Logg: 3.80 Fe/H: 0.200



DV Fit Results:

Period = 21.57058 [0.00027] d
Epoch = 139.2700 [0.0101] BKJD
Rp/R* = 0.0091 [0.0071]
a/R* = 27.22 [127.72]
b = 0.91 [0.94]
Seff = 467.74 [220.88]
Teq = 1186 [140] K
Rp = 2.83 [2.40] Re
a = 0.1868 [0.0552] AU
Ag = 176.43 [292.44] [0.60σ]
Teffp = 6682 [2672] K [2.05σ]

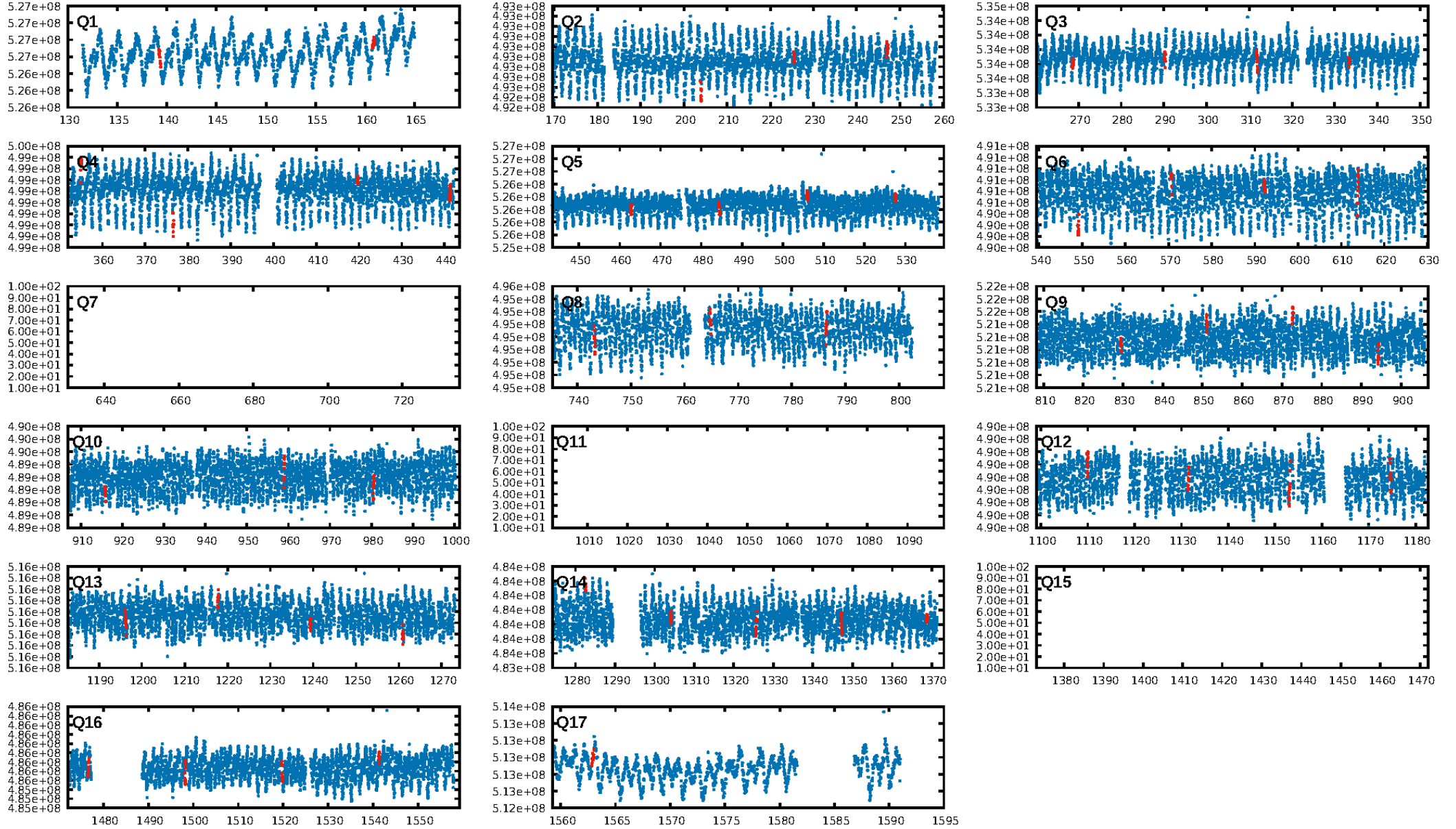
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [77.14σ]
LongPeriod-sig: 100.0% [168.73σ]
ModelChiSquare2-sig: 10.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [17/17]
GhostDiagnostic-chr: -0.2071
Centroid-sig: 69.6%
Centroid-so: 0.738 arcsec [0.77σ]
OotOffset-rm: 0.607 arcsec [1.36σ]
OotOffset-st: 2/0/3/4 [9]
KicOffset-rm: 0.591 arcsec [1.37σ]
KicOffset-st: 2/0/3/4 [9]
DiffImageQuality-fgm: 0.33 [3/9]
DiffImageOverlap-fno: 0.29 [4/14]

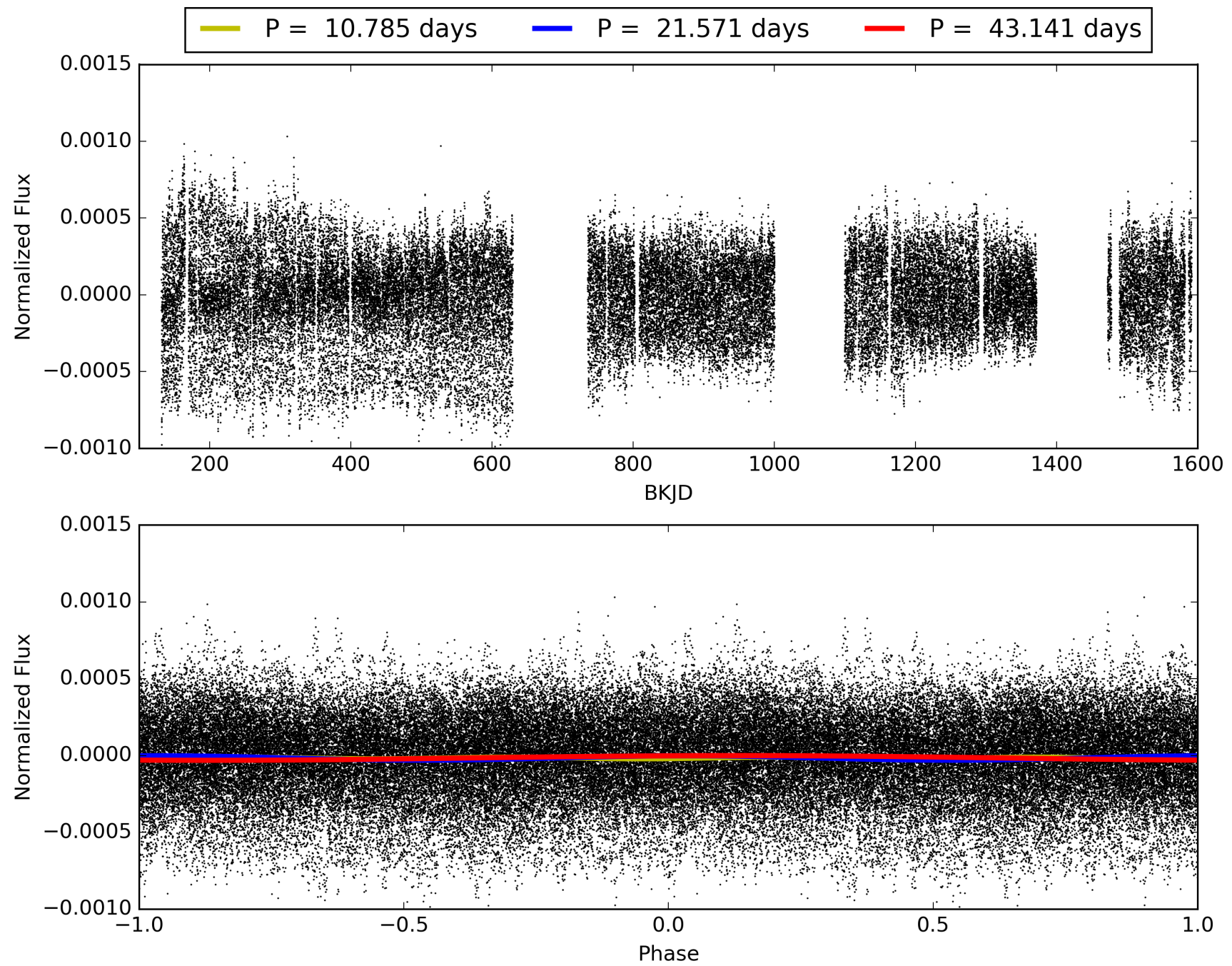
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:51:19 Z

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

TCE 010552700-08, PDC Light Curves

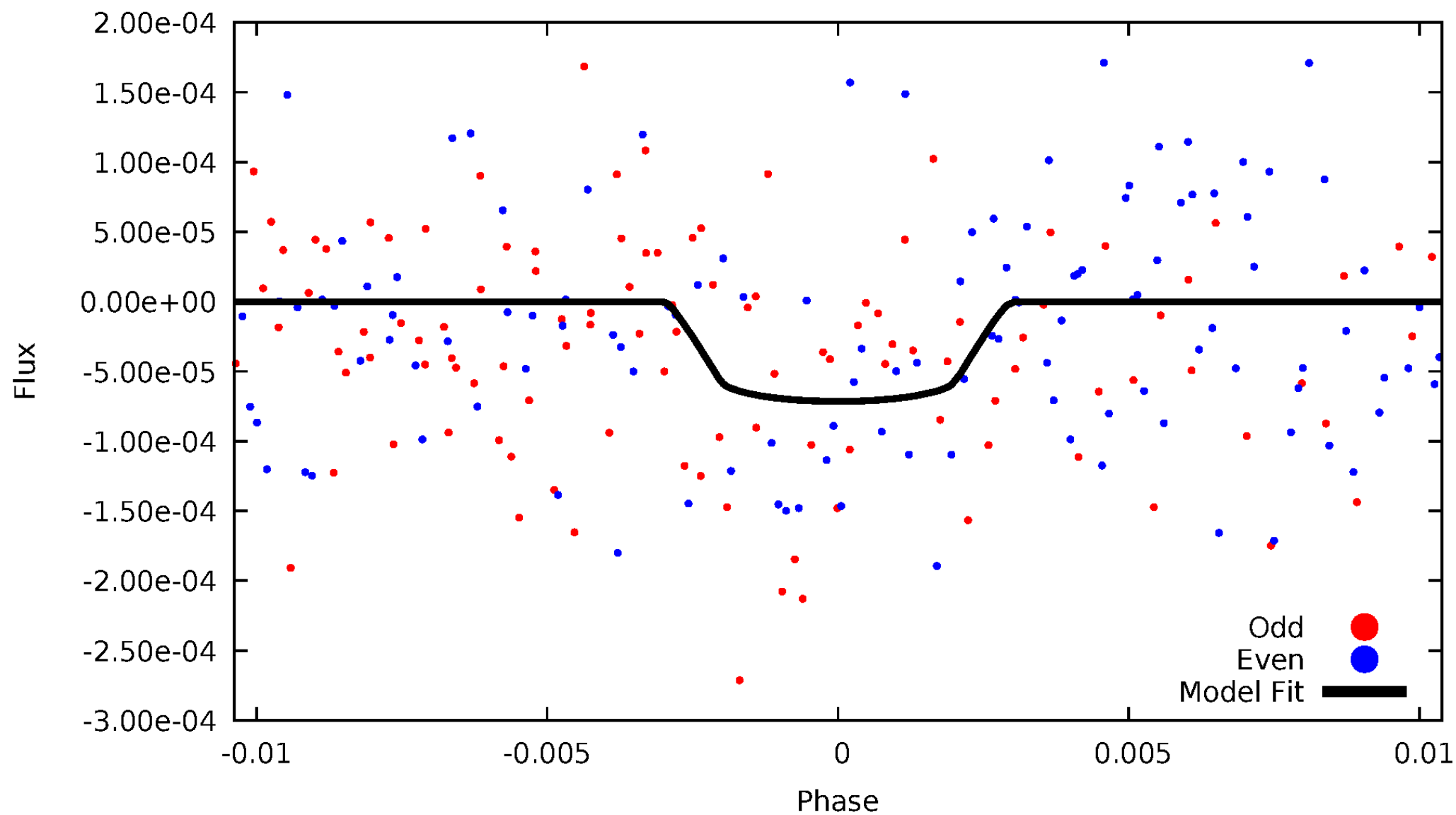


TCE 010552700-08



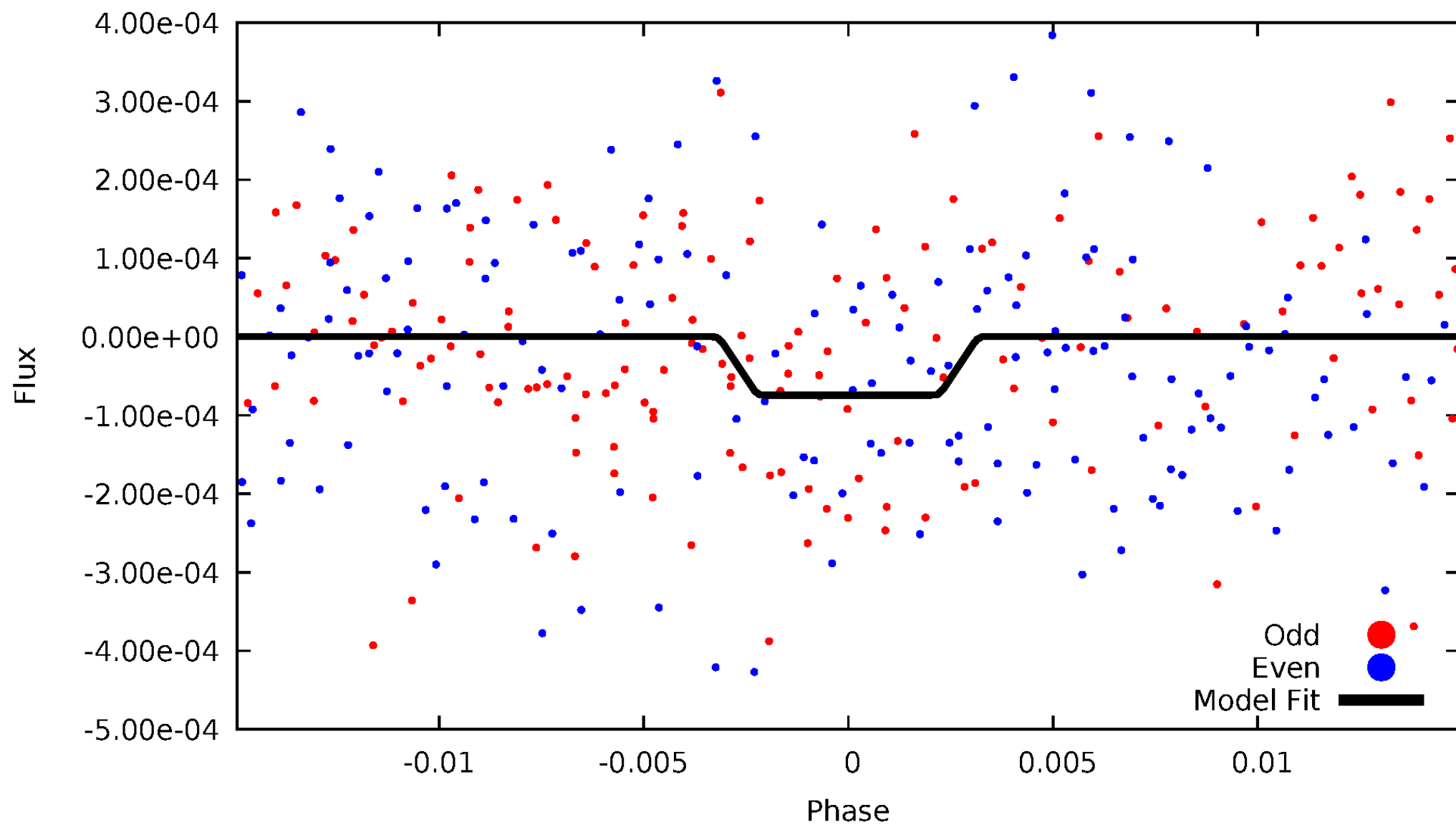
DV Odd/Even

TCE 010552700-08



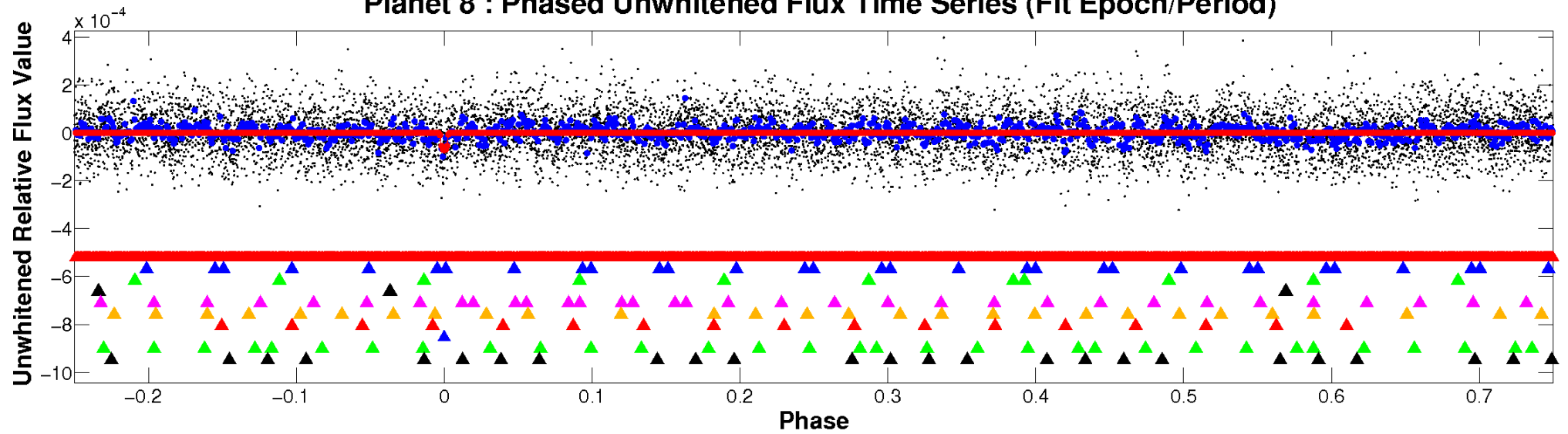
ALT Odd/Even

TCE 010552700-08

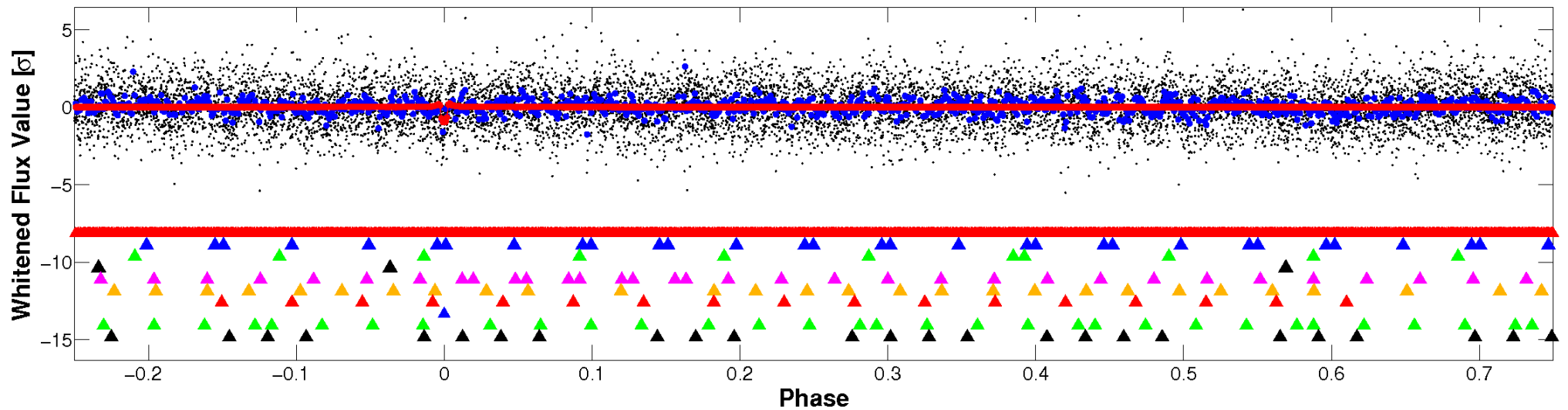


Non-Whitened Vs. Whitened Light Curve

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

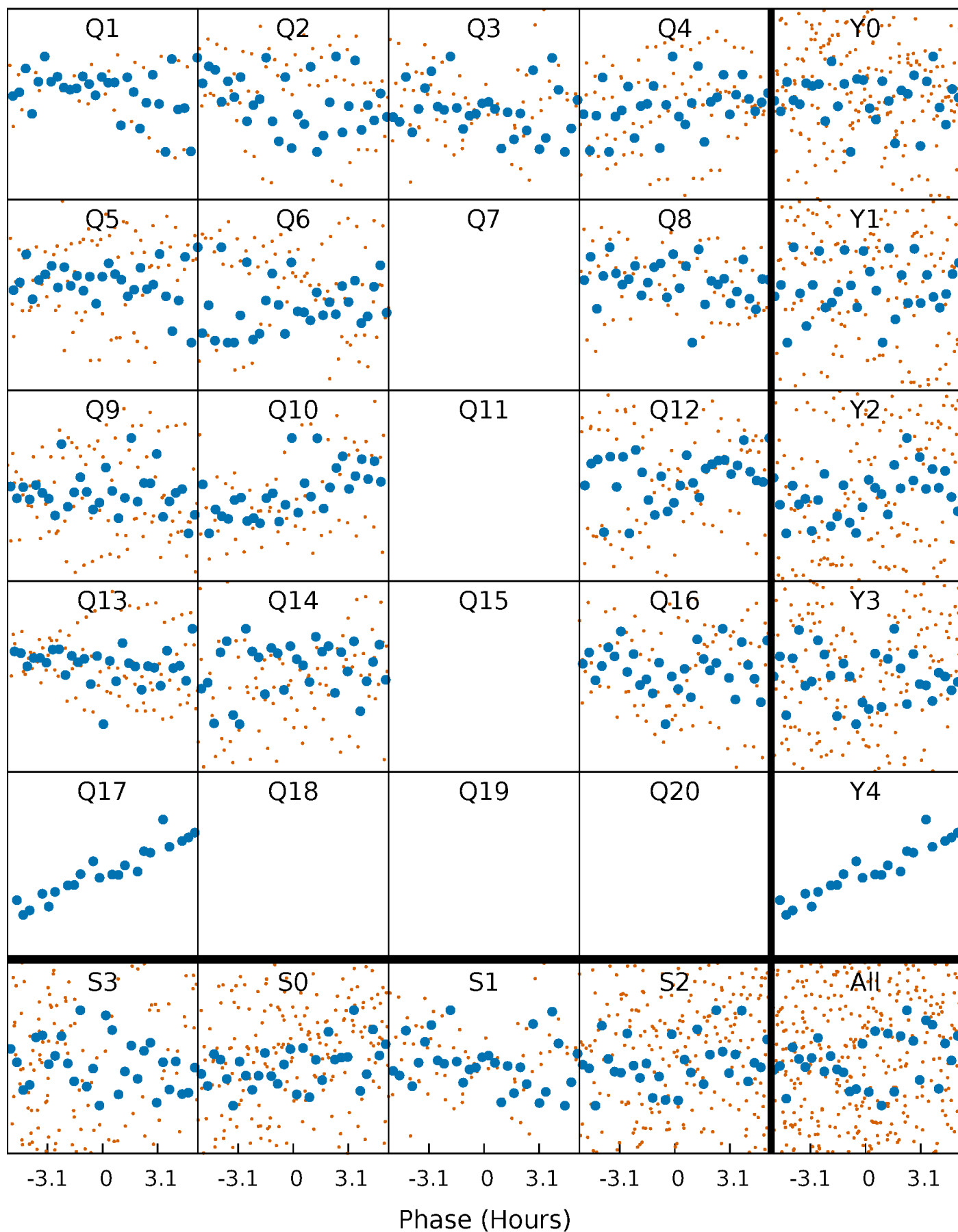


Planet 8 : Phased Whitened Flux Time Series (Fit Epoch/Period)



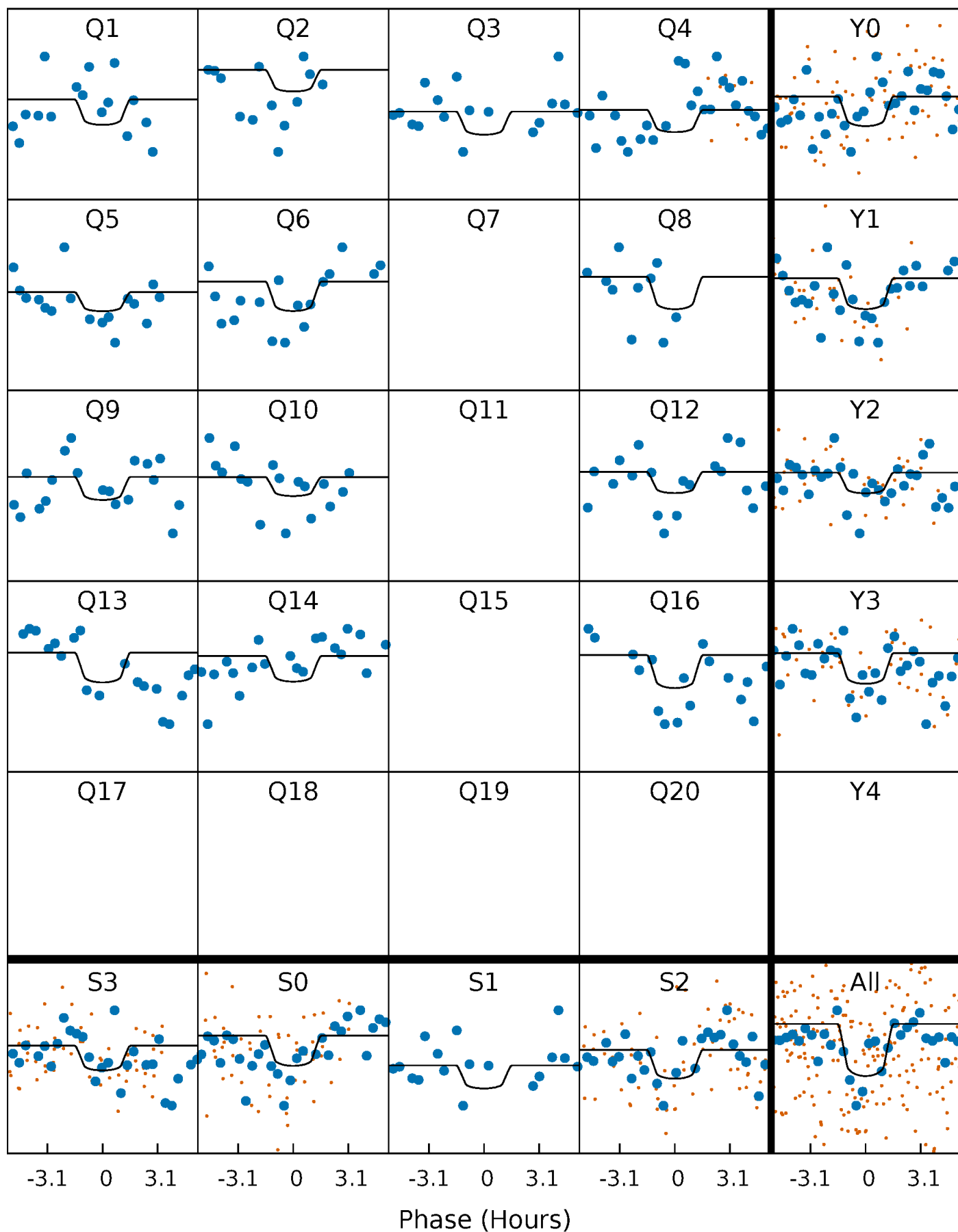
PDC Quarter-Phased Transit Curves

TCE 010552700-08 P= 21.570584 Days $T_0=139.269988$ (BKJD)



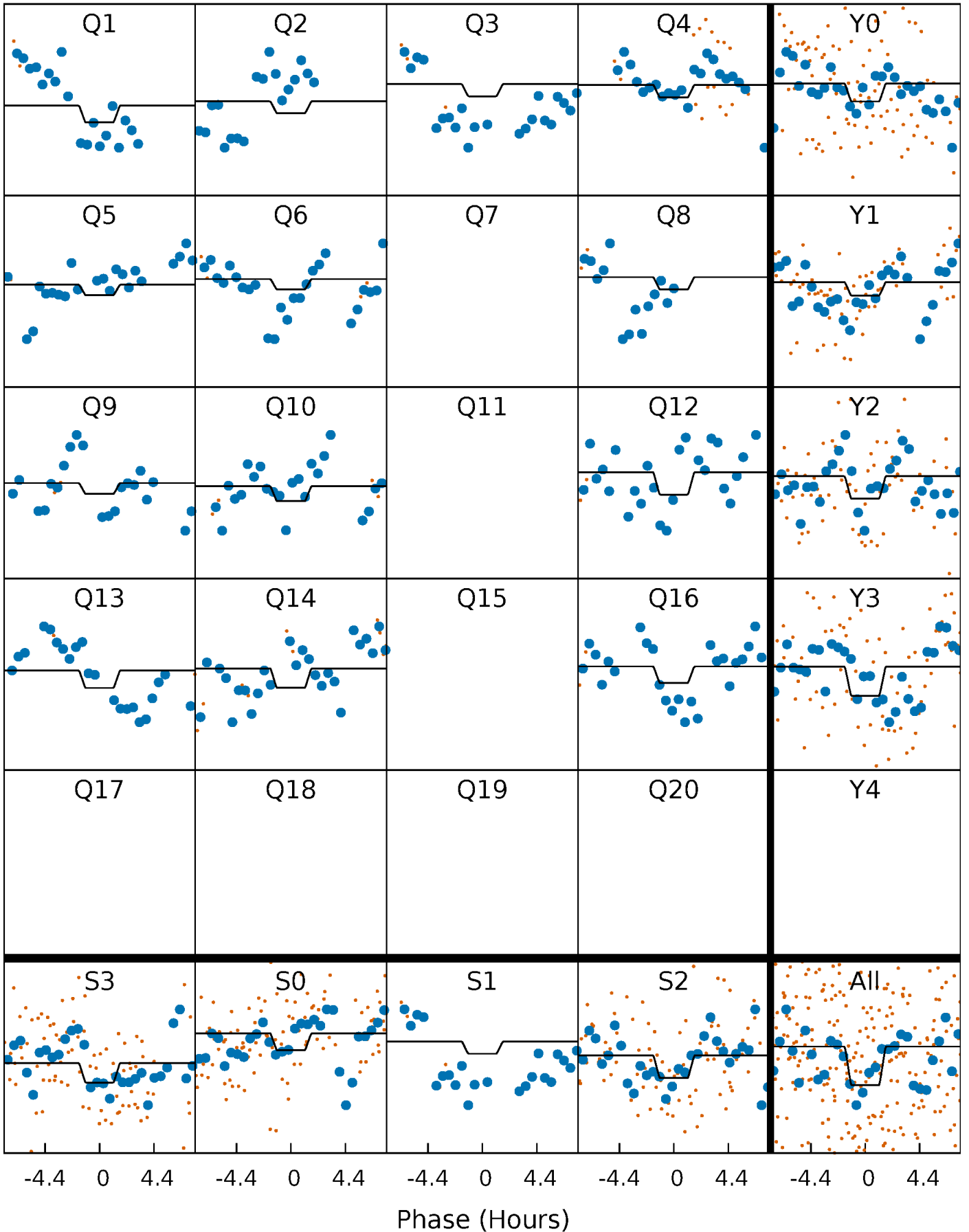
DV Quarter-Phased Transit Curves

TCE 010552700-08 $P = 21.570584$ Days $T_0 = 139.269988$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

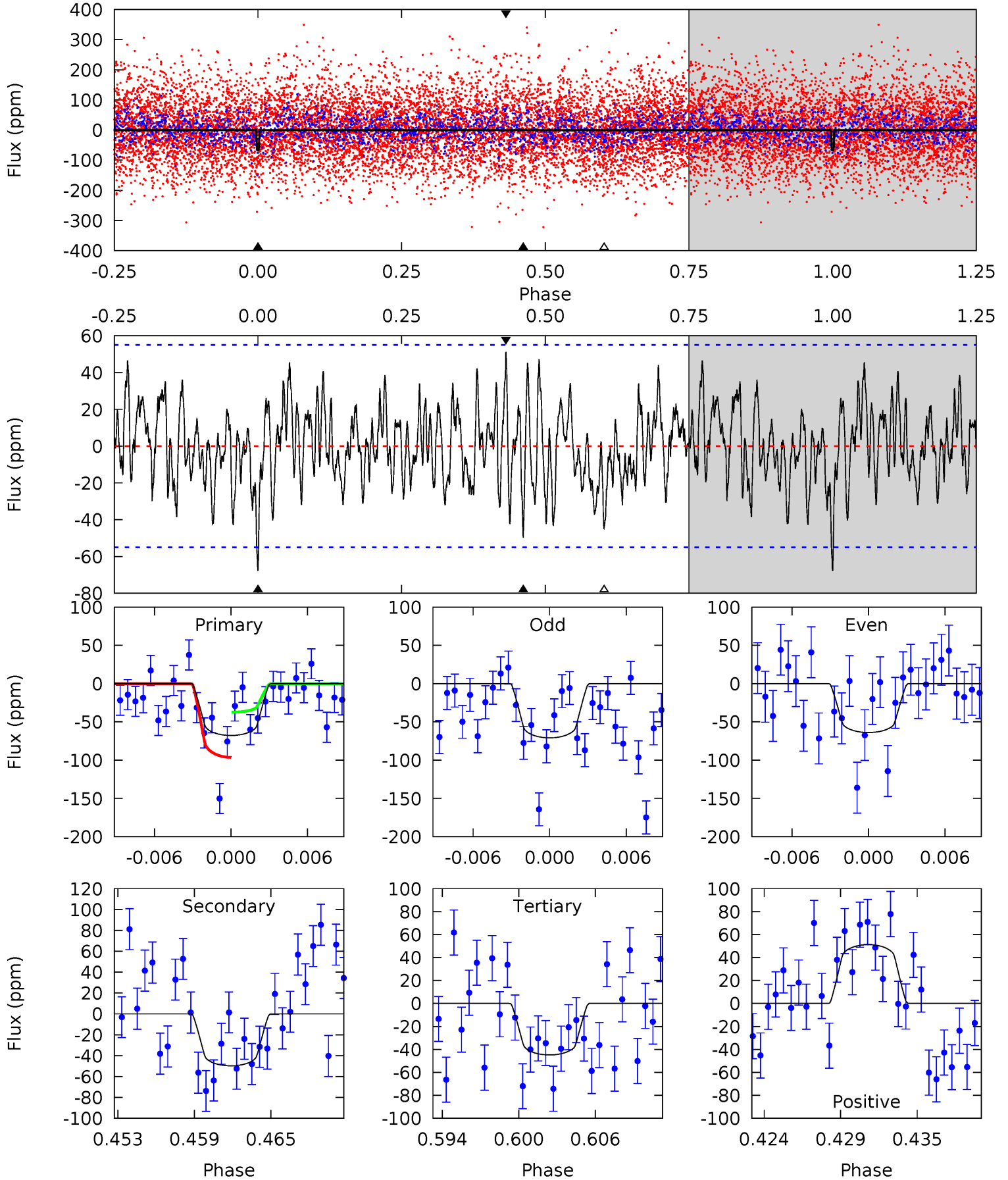
TCE 010552700-08 P= 21.570828 Days $T_0=139.258661$ (BKJD)



DV Model-Shift Uniqueness Test

010552700-08, P = 21.570584 Days, E = 117.699404 Days

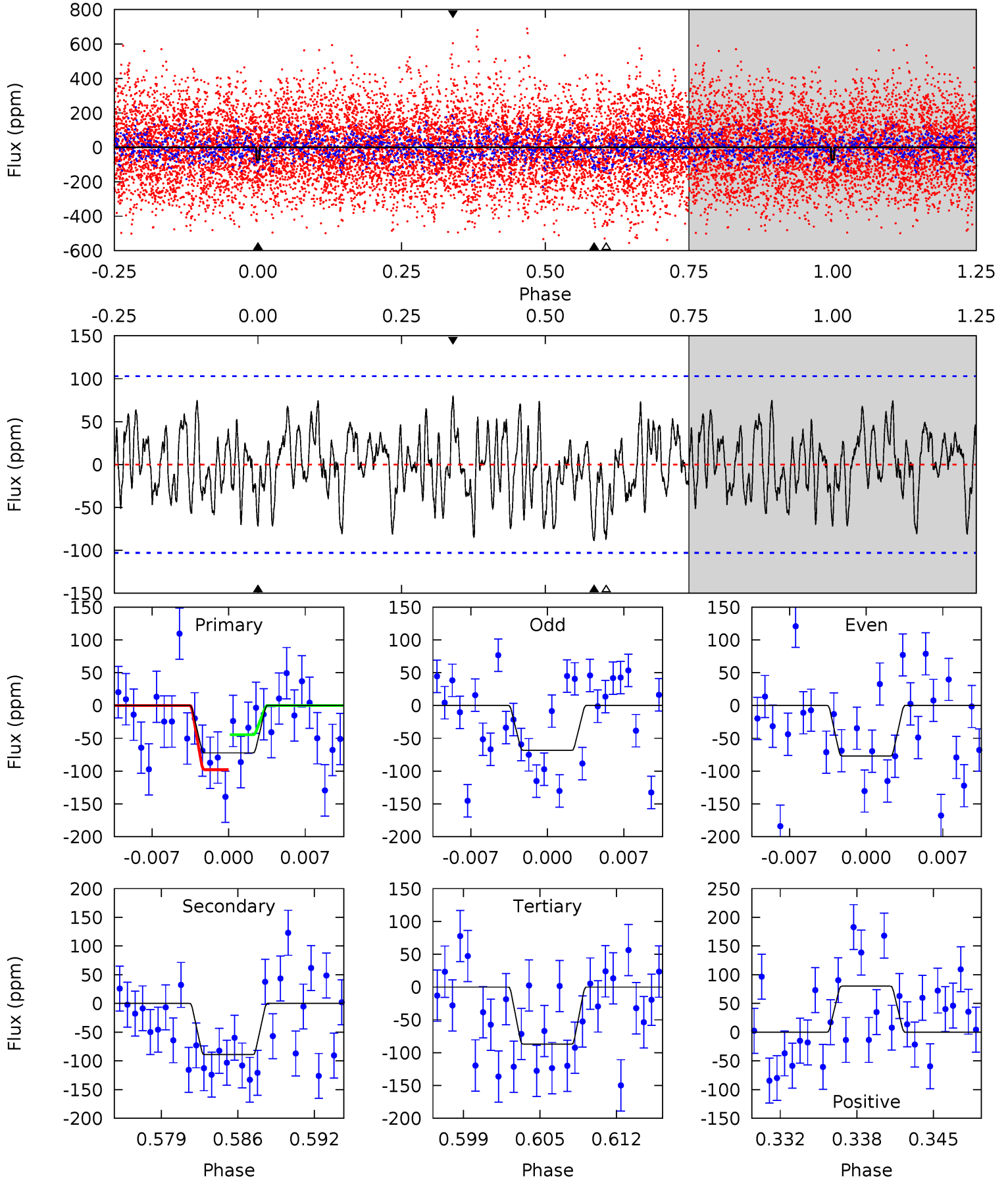
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.31	4.64	4.18	4.77	5.13	2.75	1.71	2.14	1.54	0.46	-0.14	0.32	0.77	0.43	2.75



Alt Model-Shift Uniqueness Test

010552700-08, P = 21.570828 Days, E = 117.687833 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.58	4.42	4.32	3.98	5.11	2.72	1.62	-0.74	-0.40	0.10	0.44	0.21	0.99	0.47	1.32



Stellar Parameters For KIC 010552700

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6875^{+164}_{-226}	$3.798^{+0.259}_{-0.111}$	$0.200^{+0.200}_{-0.300}$	$2.856^{+0.503}_{-0.935}$	$1.868^{+0.180}_{-0.361}$	$0.113^{+0.194}_{-0.039}$
	+2%/-3%	+7%/-3%	+100%/-150%	+18%/-33%	+10%/-19%	+172%/-35%
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 010552700-08 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-50 ± 11	$2.94^{+2.22}_{-1.79}$	1630^{+95}_{-131}	5674^{+4200}_{-1103}	108^{+566}_{-72}
Alt.	-89 ± 20	$2.73^{+1.95}_{-1.68}$	1631^{+99}_{-133}	6919^{+6508}_{-1689}	219^{+1304}_{-148}

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 $A_{obs} \gg 1.0$

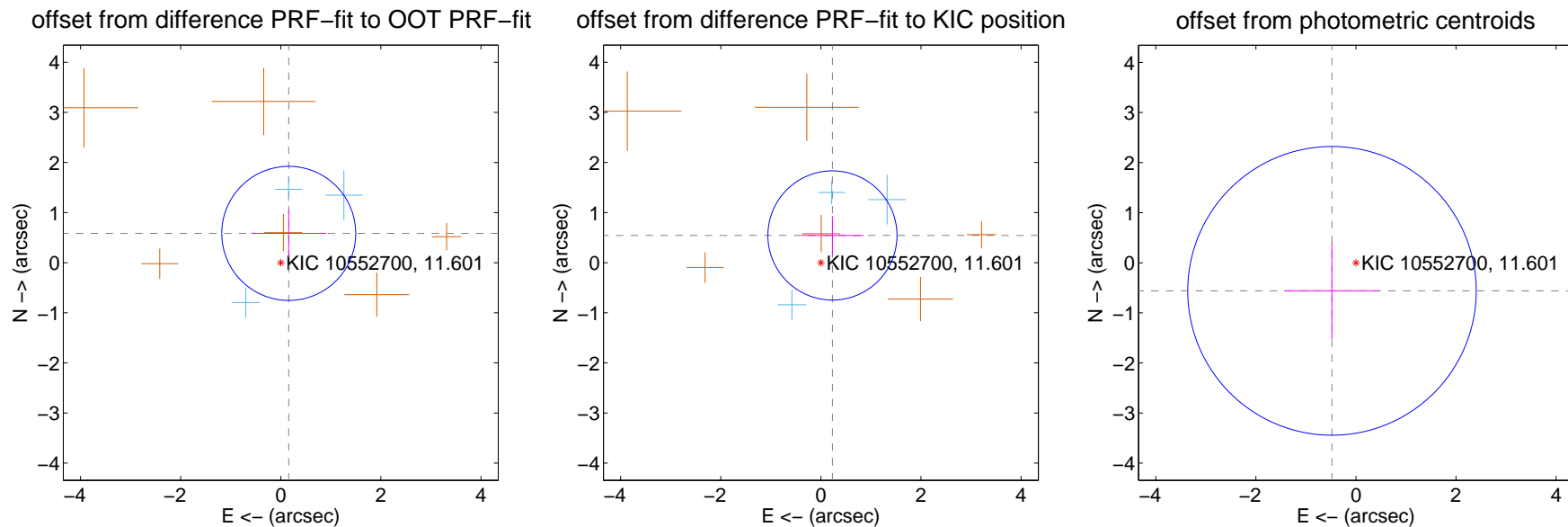
DV Centroid Data

Supplemental centroid analysis for 010552700-08. **Kepler magnitude: 11.60.** Transit SNR 6.60

There are 3 quarters with good PRF difference image offsets

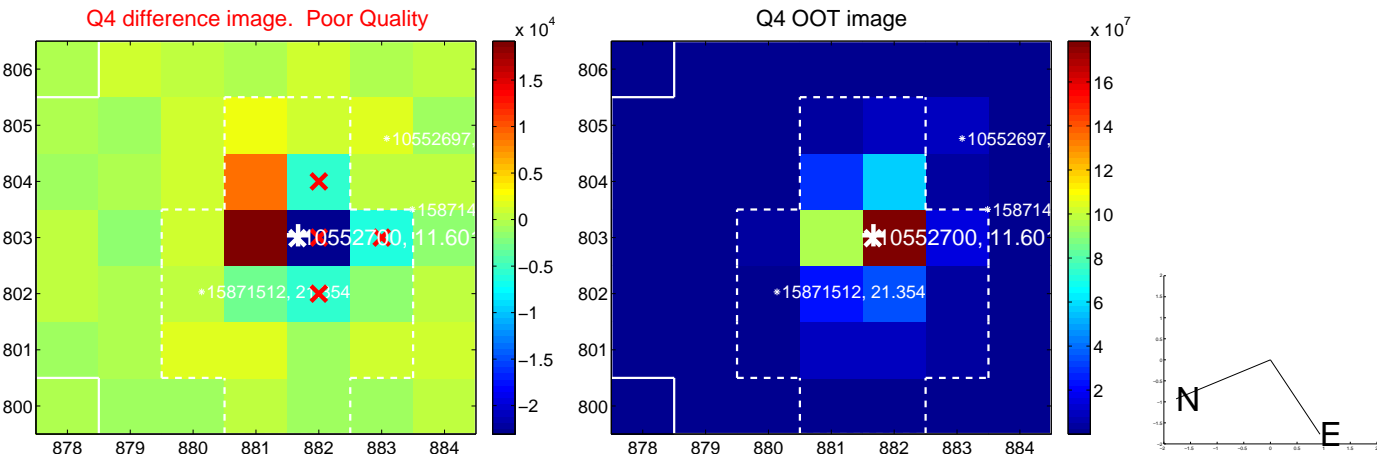
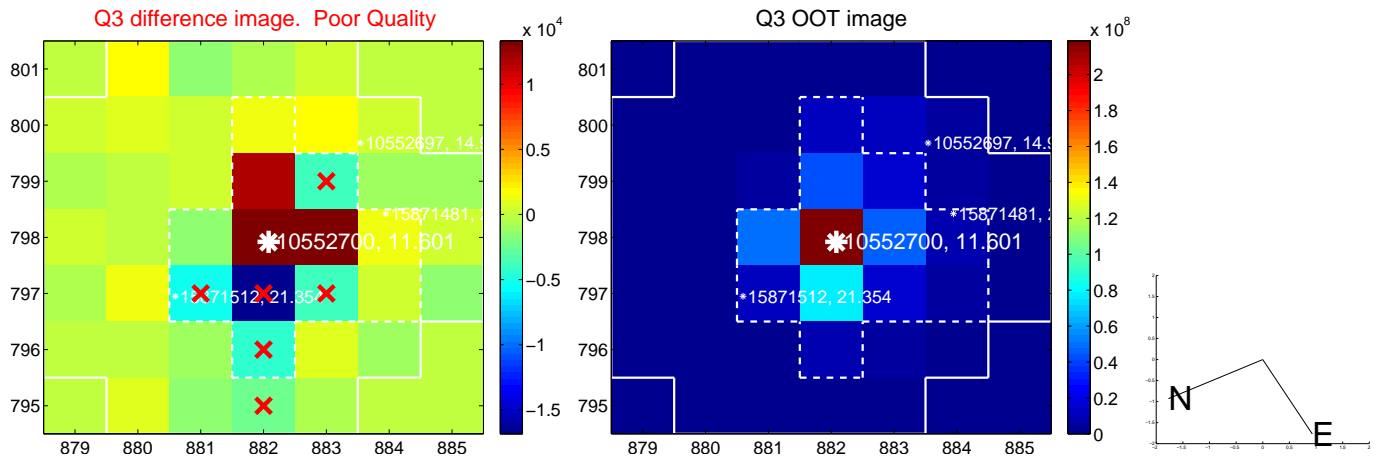
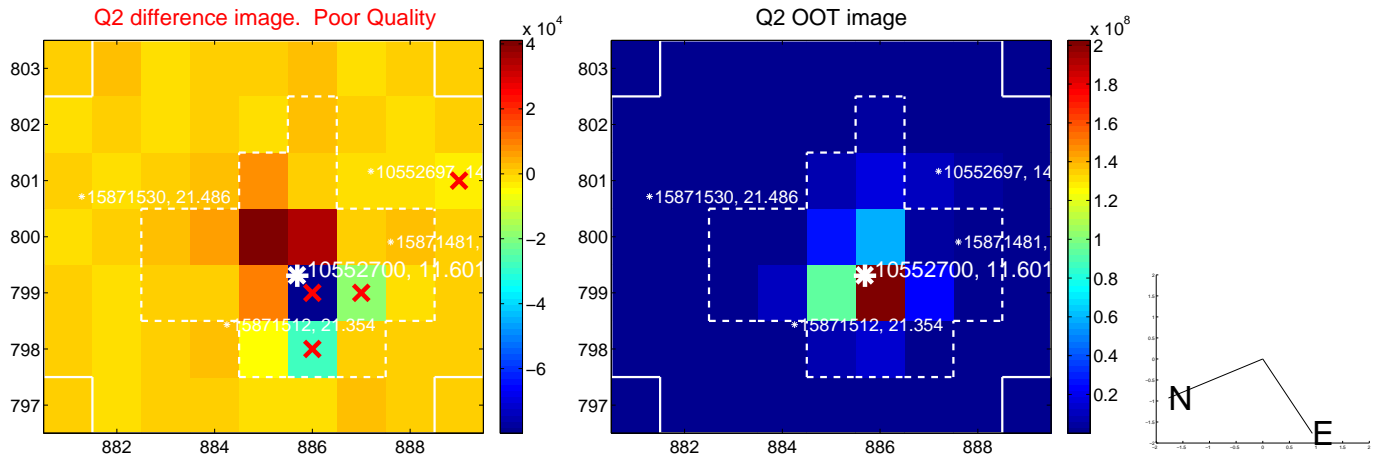
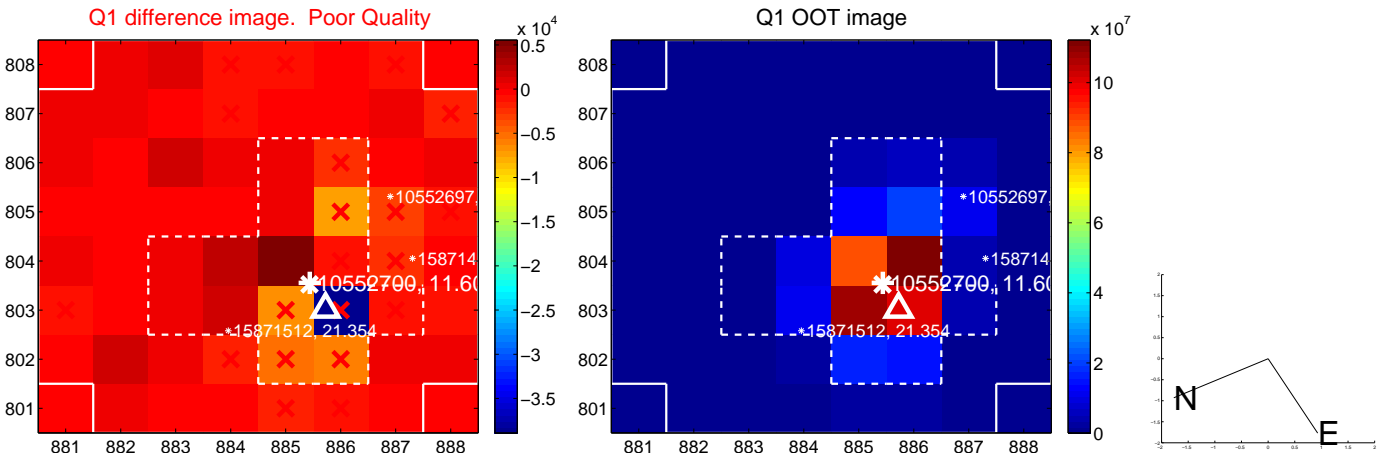
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.607 ± 0.446	1.36	-0.160 ± 0.752	0.585 ± 0.476
PRF-fit source offset from KIC position	0.591 ± 0.430	1.37	-0.231 ± 0.616	0.544 ± 0.387
photometric centroid source offset	0.74 ± 0.96	0.77	0.48 ± 0.95	-0.56 ± 0.97

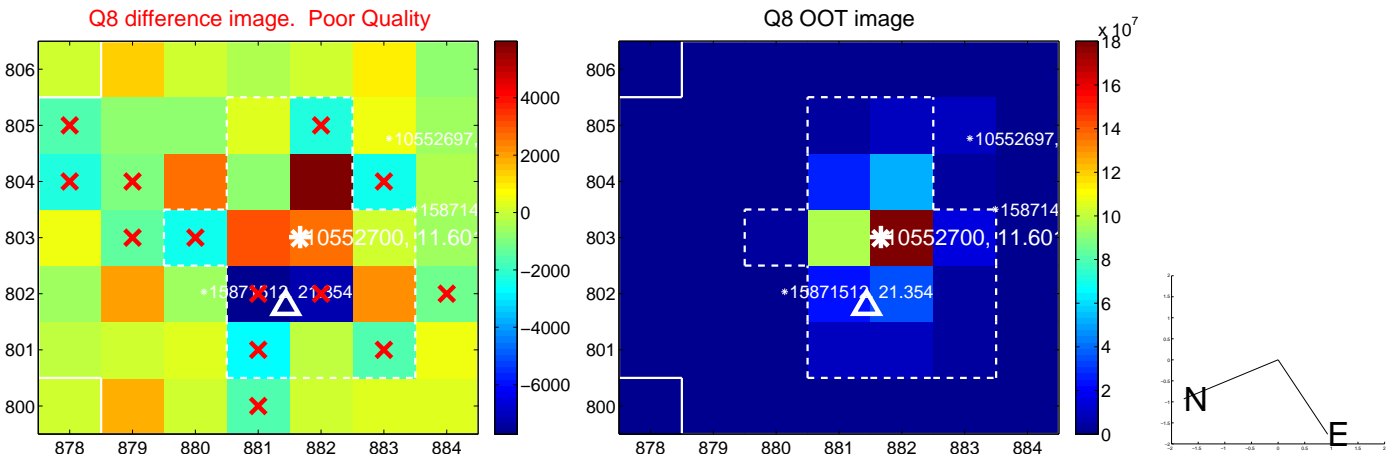
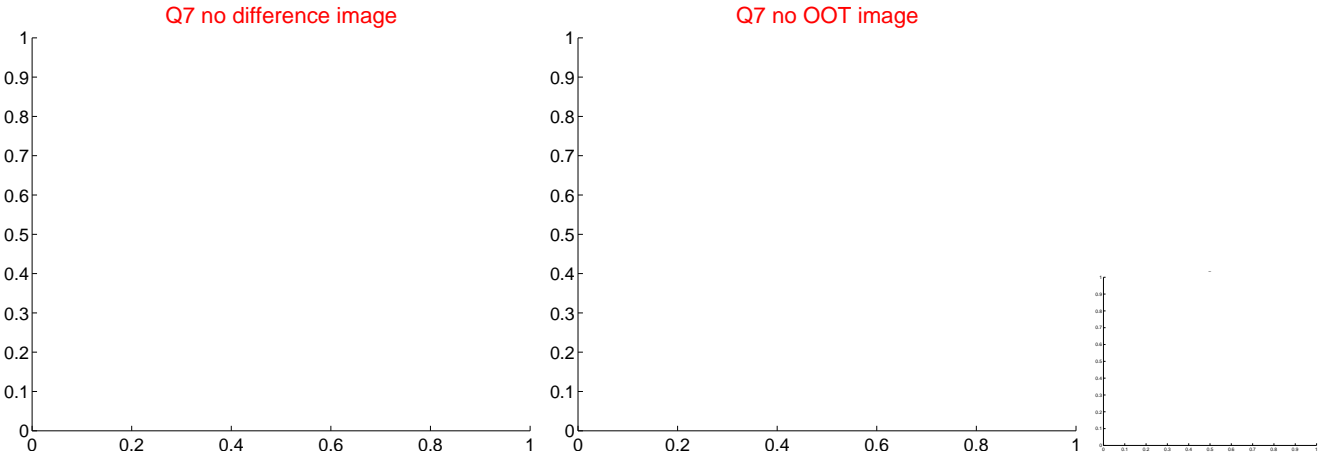
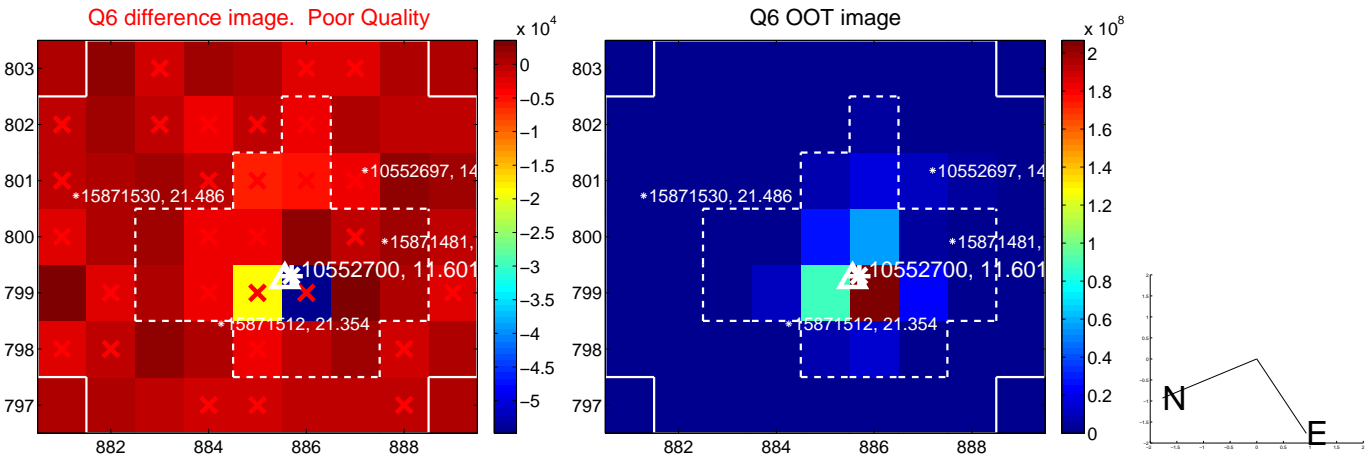
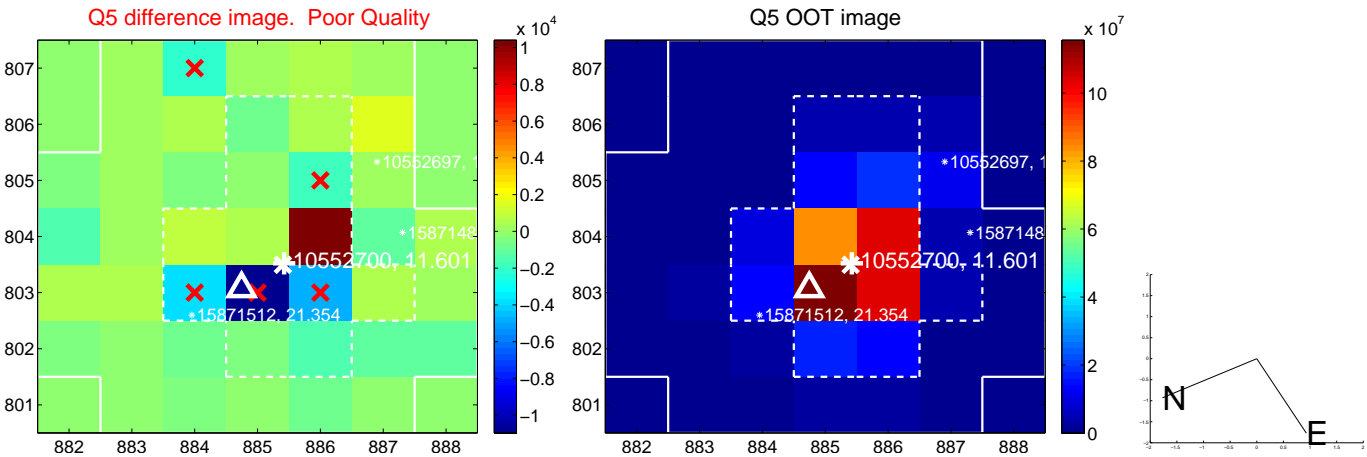


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

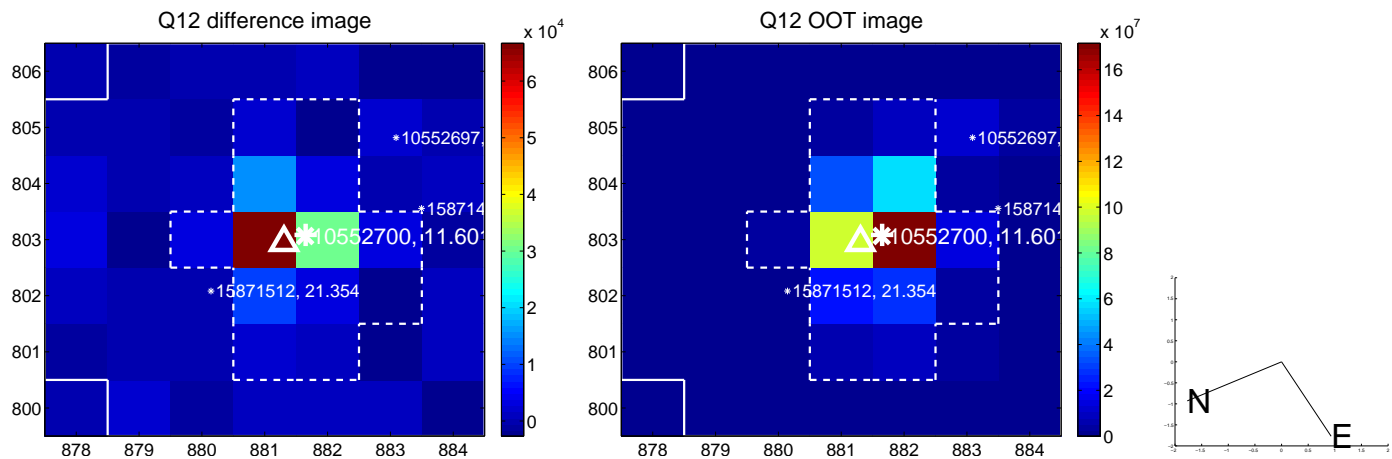
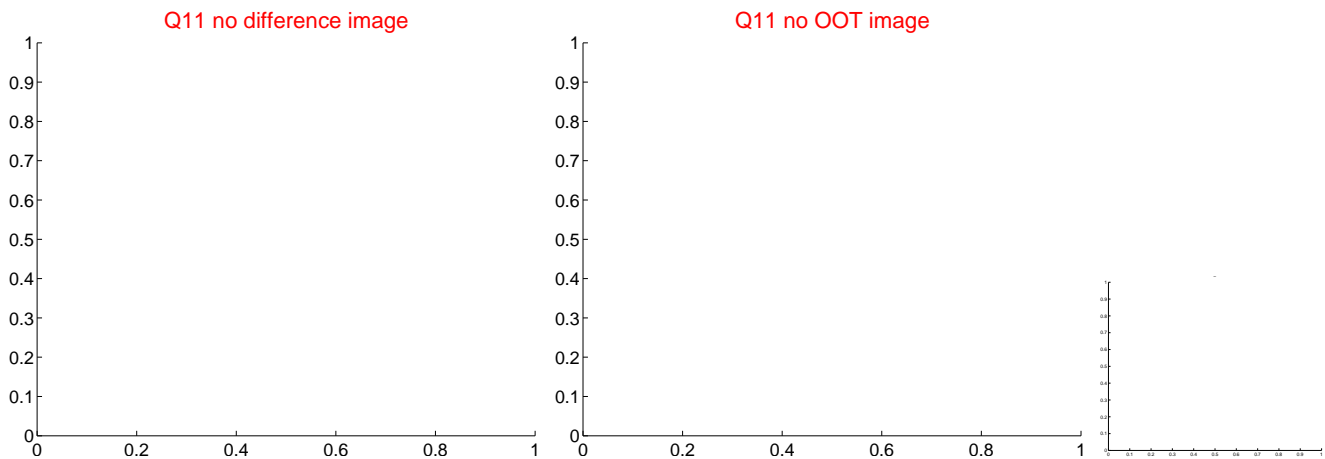
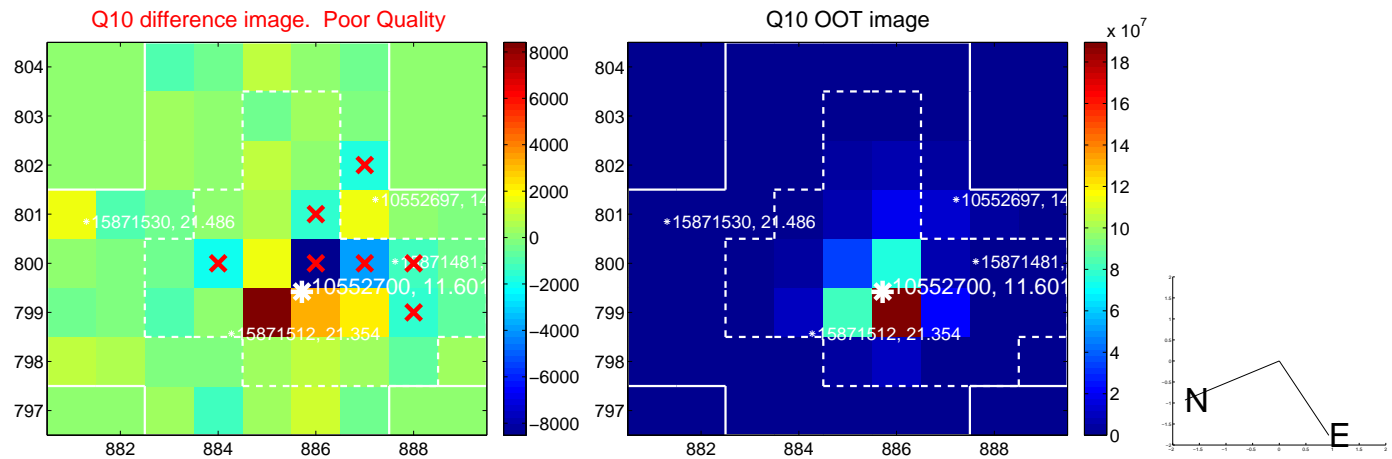
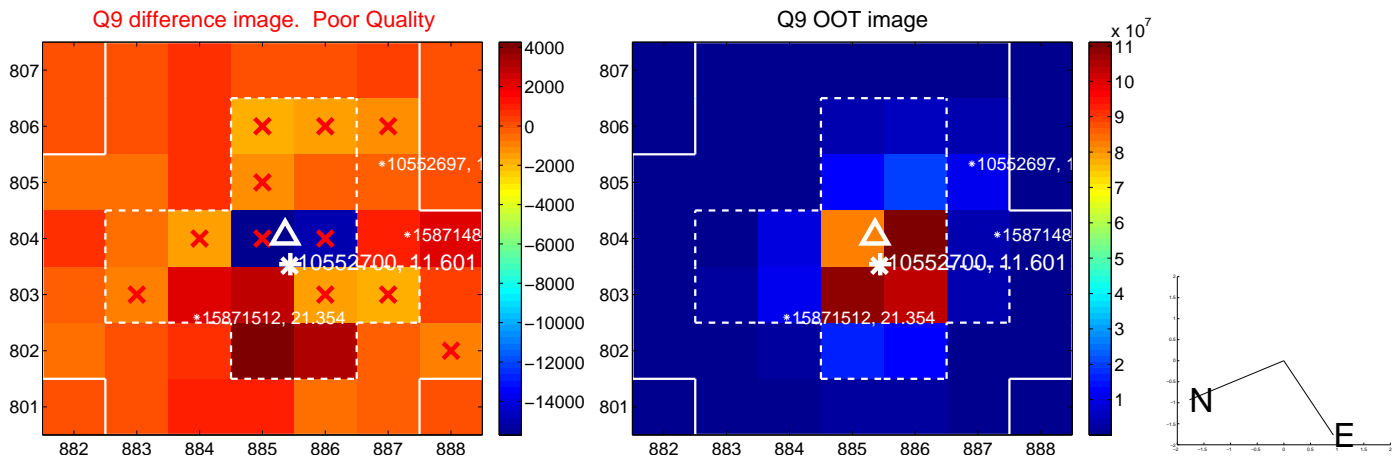
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



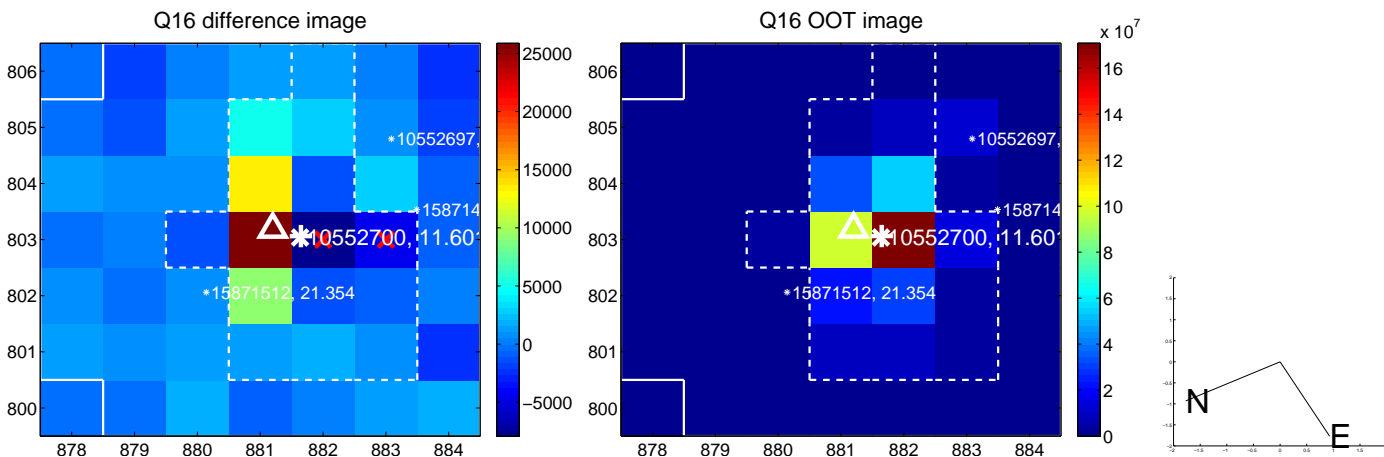
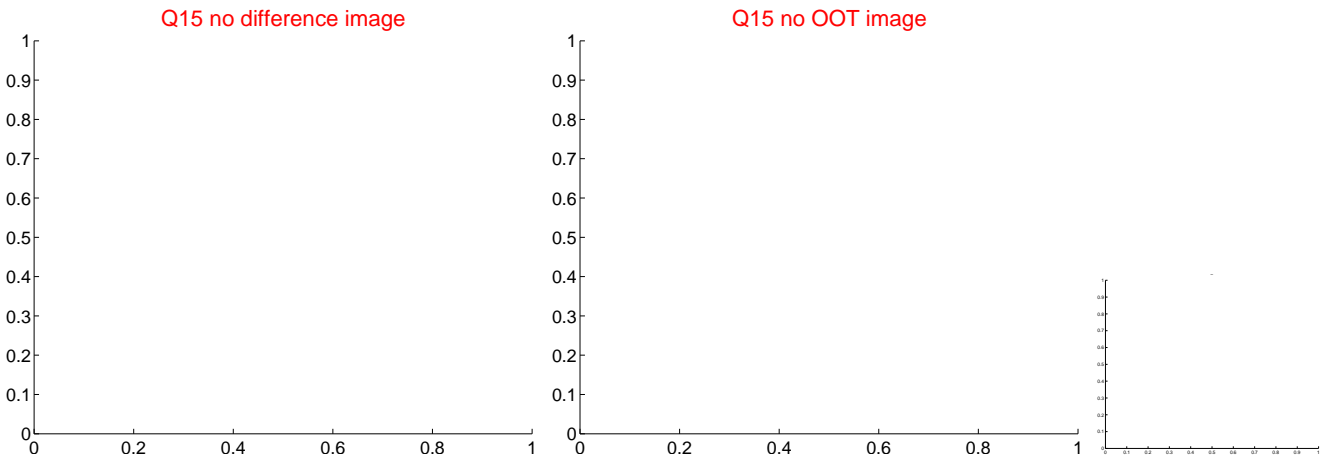
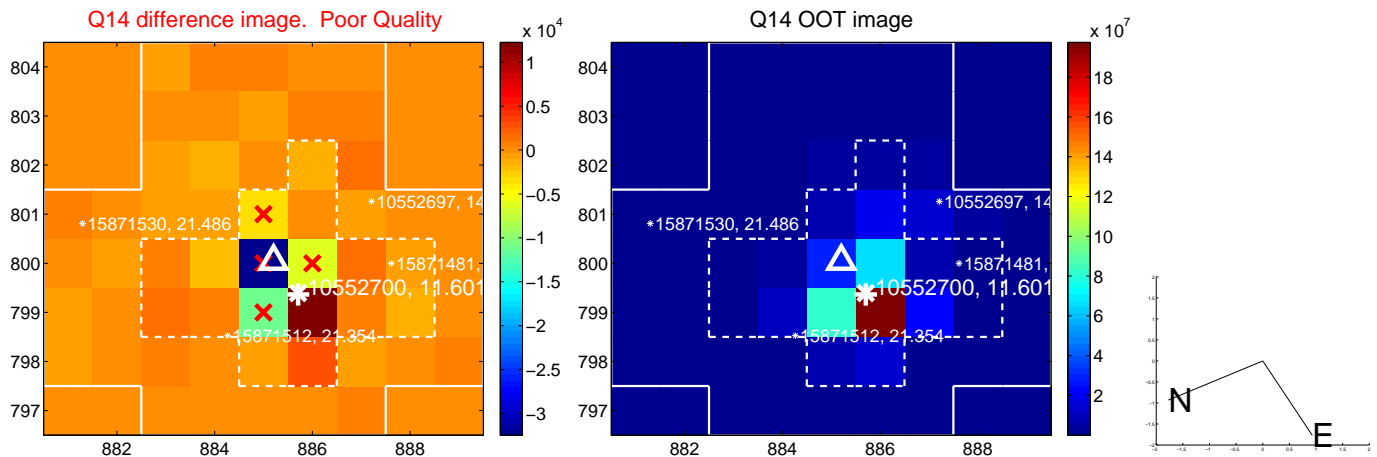
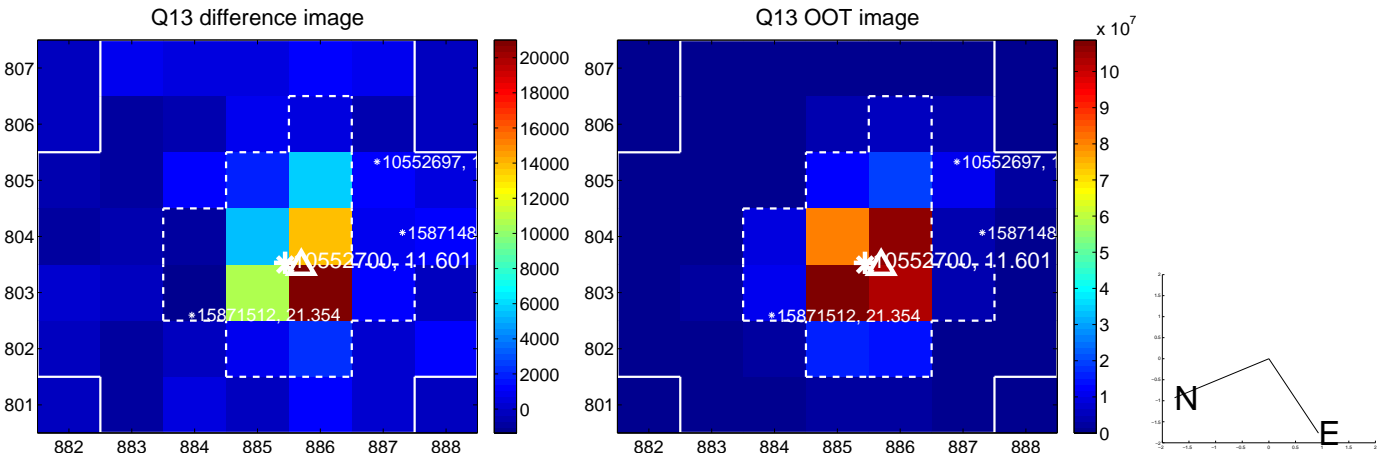
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



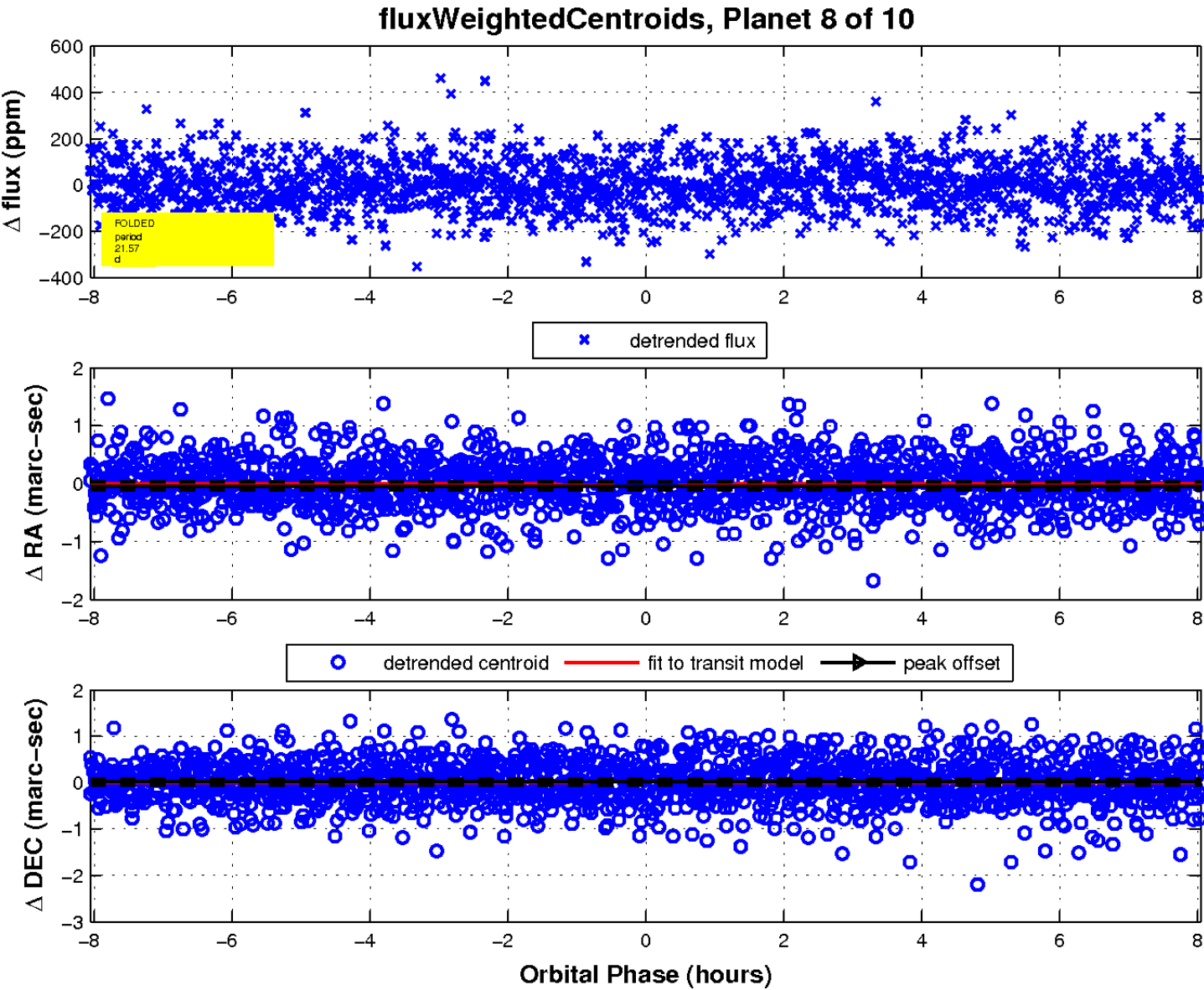
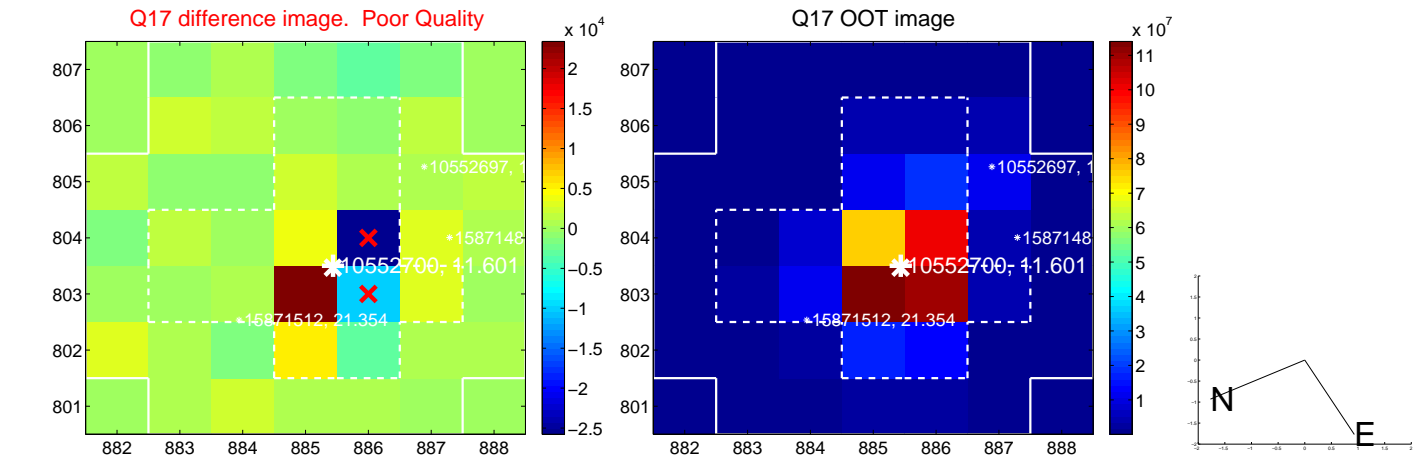
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

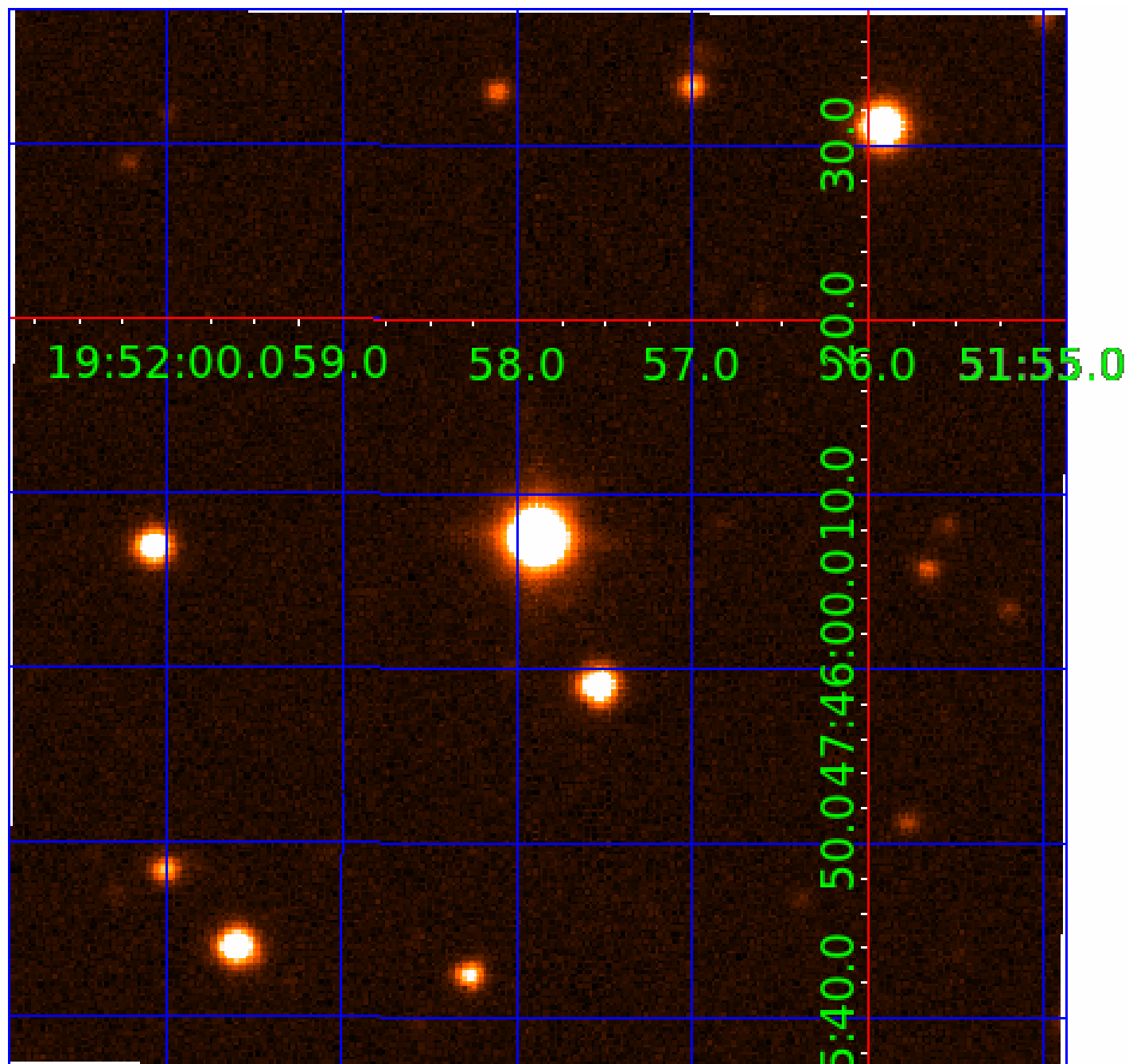


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
010552700-01	OBS	7342.01	0.947637	131.958058	3.9	5.827	10.7	2.8	2.86	6875	0.66	30174.11
010552700-02	OBS	No	46.382972	162.859199	245.5	1.305	9.4	12.1	2.86	6875	5.08	168.53
010552700-03	OBS	No	135.910835	169.141834	206.3	2.598	8.9	7.9	2.86	6875	4.78	40.19
010552700-04	OBS	No	414.093817	367.252579	237.0	16.216	8.1	7.3	2.86	6875	5.10	9.10
010552700-05	OBS	No	43.917309	161.103293	147.1	1.700	8.6	8.6	2.86	6875	3.99	181.26
010552700-06	OBS	No	53.247872	151.349957	91.0	7.054	8.8	6.3	2.86	6875	2.96	140.20
010552700-07	OBS	No	85.256851	152.433220	118.1	3.369	8.6	5.8	2.86	6875	3.38	74.85
010552700-08	OBS	No	21.570584	139.269988	71.5	2.686	8.6	6.6	2.86	6875	2.83	467.74
010552700-09	OBS	No	46.327798	145.577777	109.3	1.551	8.6	5.5	2.86	6875	3.38	168.80
010552700-10	OBS	No	58.468746	146.900902	150.9	2.910	7.9	7.3	2.86	6875	4.03	123.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010552700-01	OBS	FP	0.00	1	0	0	0	LPP_DV
010552700-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
010552700-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
010552700-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
010552700-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV
010552700-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
010552700-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET—HALO_GHOST
010552700-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
010552700-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
010552700-10	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST

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

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

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

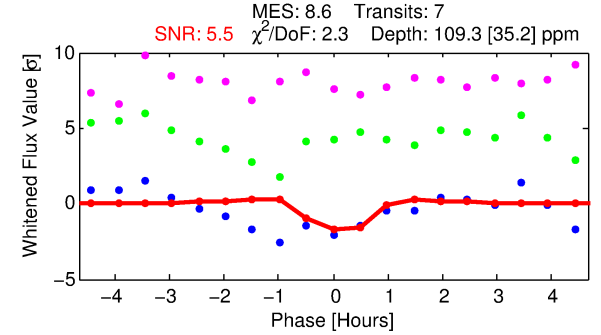
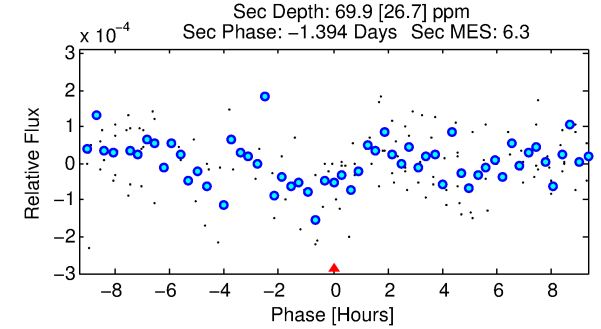
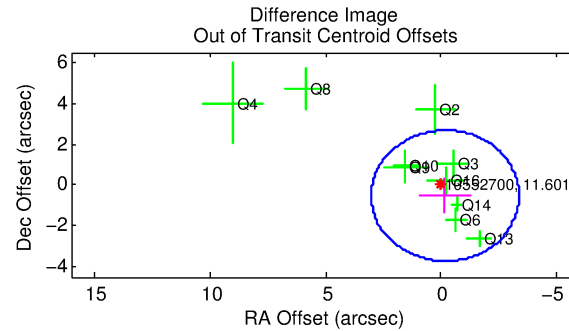
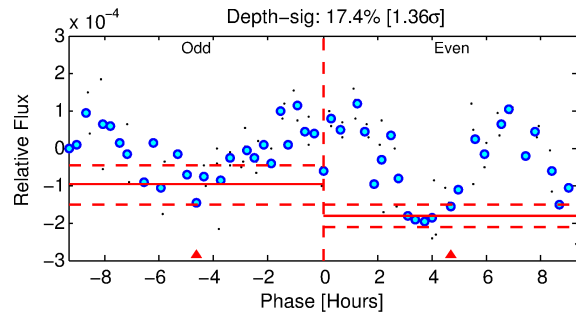
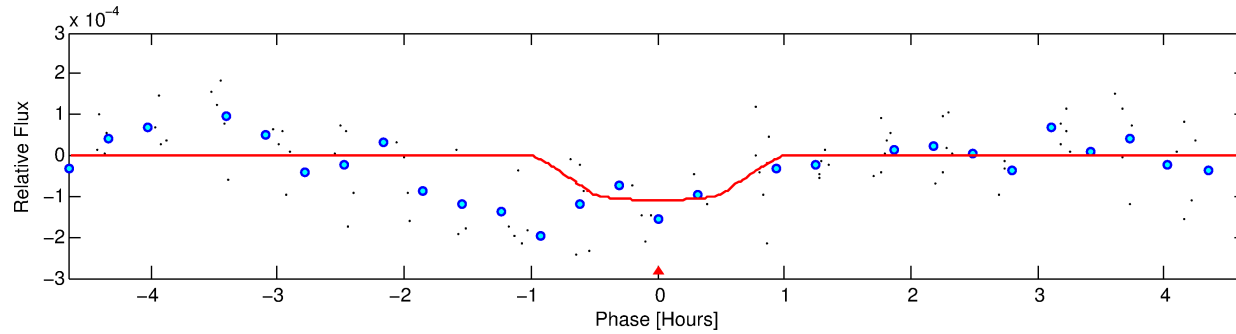
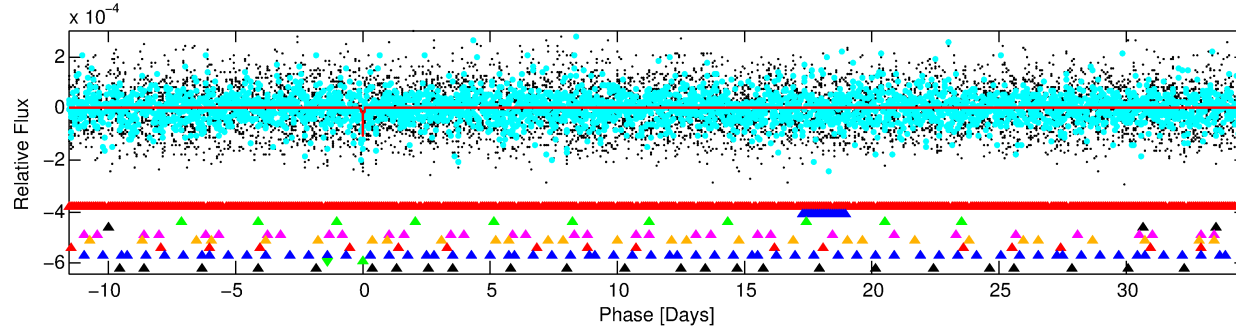
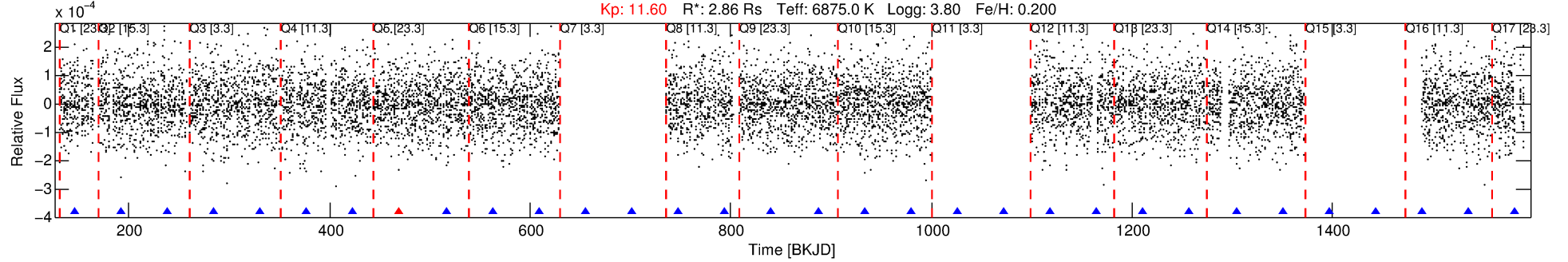
Ephemeris Match Information For 010552700-09

No Significant Match Found

DV One-Page Summary

KIC: 10552700 Candidate: 9 of 10 Period: 46.328 d
KOI: K07342 Corr: No Ephemeris Match

Kp: 11.60 R*: 2.86 Rs Teff: 6875.0 K Logg: 3.80 Fe/H: 0.200



DV Fit Results:

Period = 46.32780 [0.00063] d
Epoch = 145.5778 [0.0119] BKJD
Rp/R* = 0.0108 [0.0228]
a/R* = 125.14 [1590.74]
b = 0.85 [4.19]
Seff = 168.80 [79.71]
Teq = 919 [109] K
Rp = 3.38 [7.18] Re
a = 0.3110 [0.0918] AU
Ag = 326.46 [1385.82] [0.23σ]
Teffp = 6040 [6377] K [0.80σ]

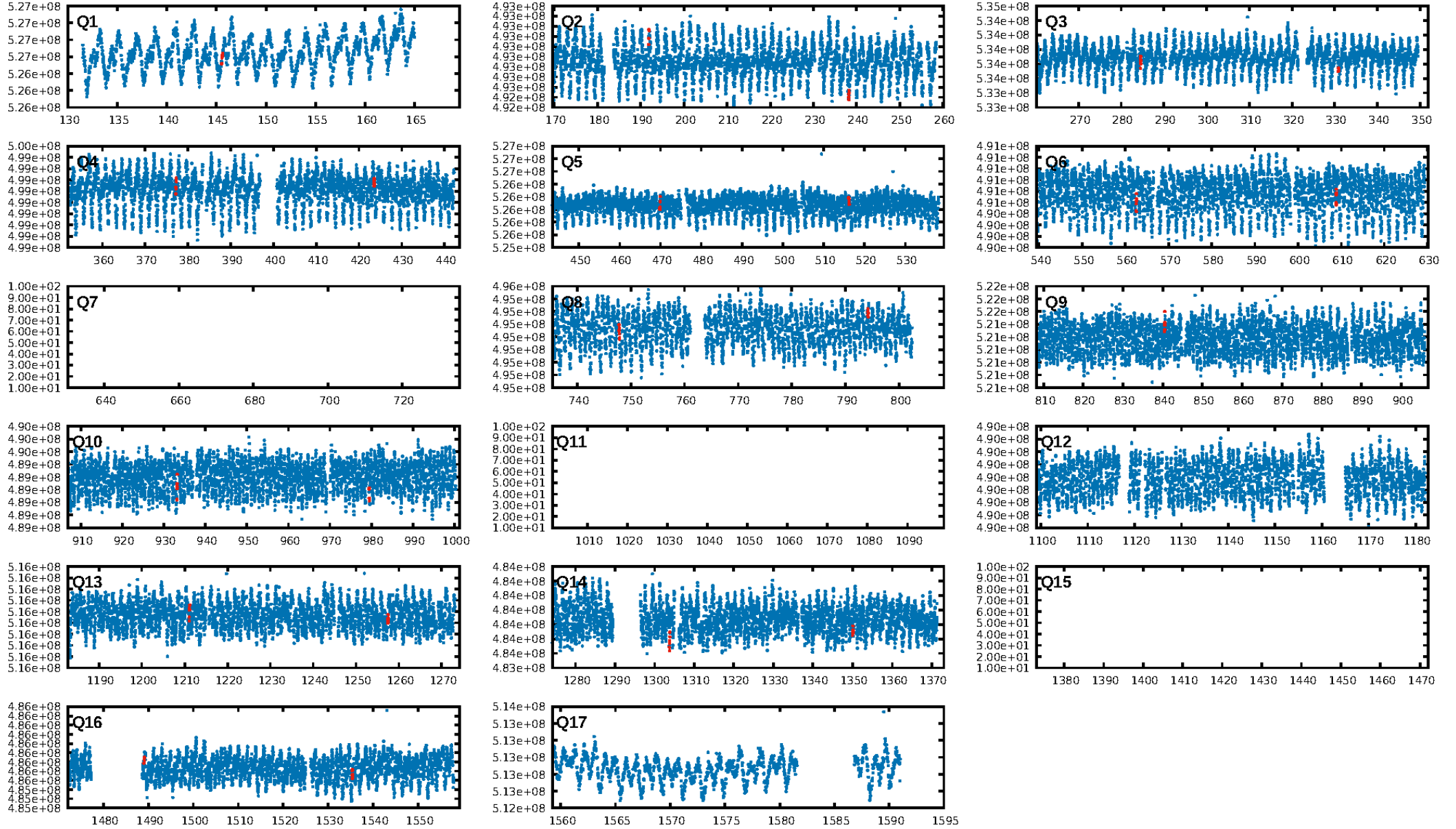
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [25.14σ]
LongPeriod-sig: 48.6% [0.65σ]
ModelChiSquare2-sig: 26.9%
ModelChiSquareGof-sig: 85.7%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.83 [5/6]
GhostDiagnostic-chr: -1.3
Centroid-sig: 24.1%
Centroid-so: 1.525 arcsec [1.32σ]
OotOffset-rm: 0.549 arcsec [0.51σ]
KicOffset-rm: 0.553 arcsec [0.53σ]
OotOffset-st: 4/1/3/2 [10]
KicOffset-st: 4/1/3/2 [10]
DiffImageQuality-fgm: 0.40 [4/10]
DiffImageOverlap-fno: 0.33 [4/12]

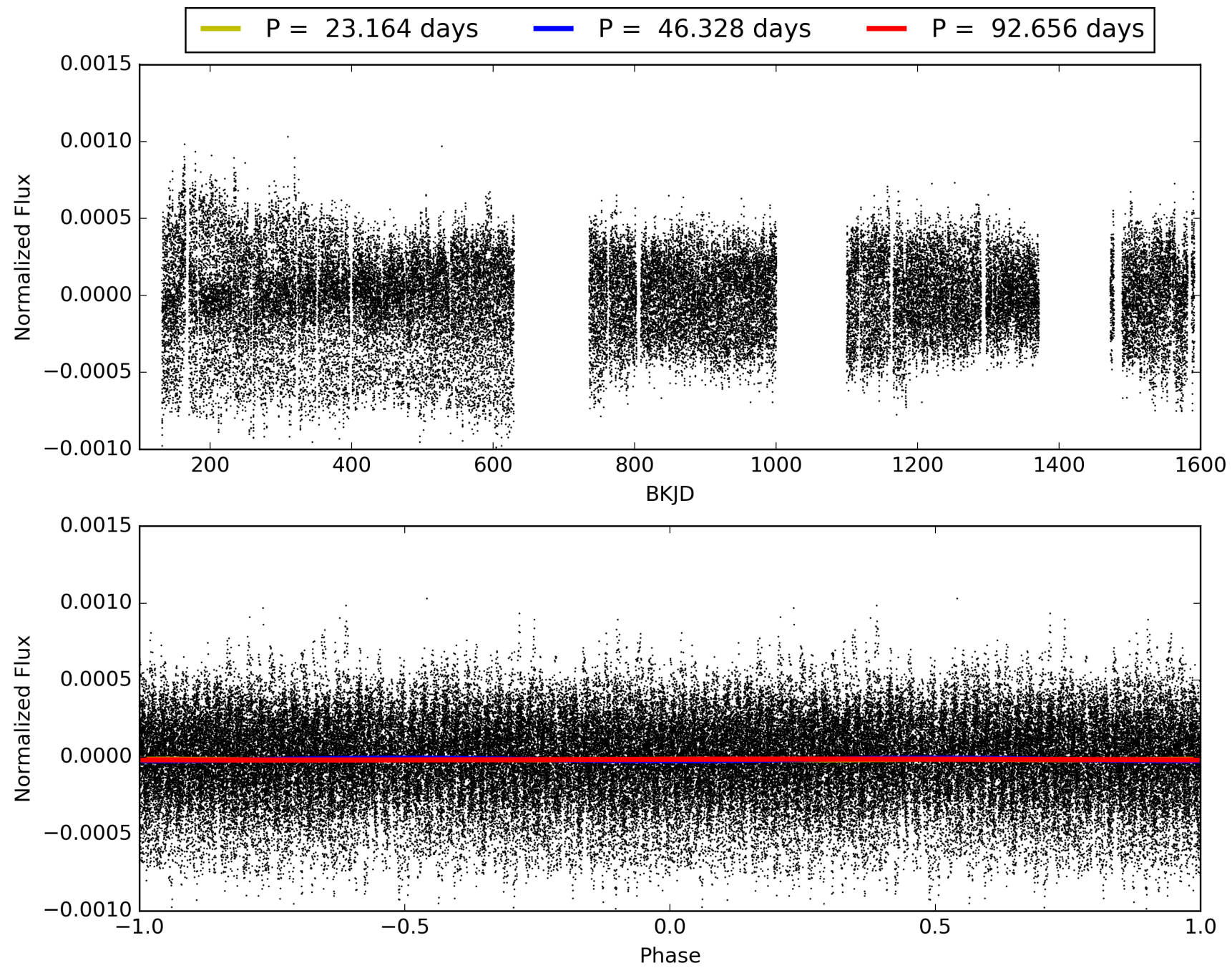
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:51:22 Z

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

TCE 010552700-09, PDC Light Curves

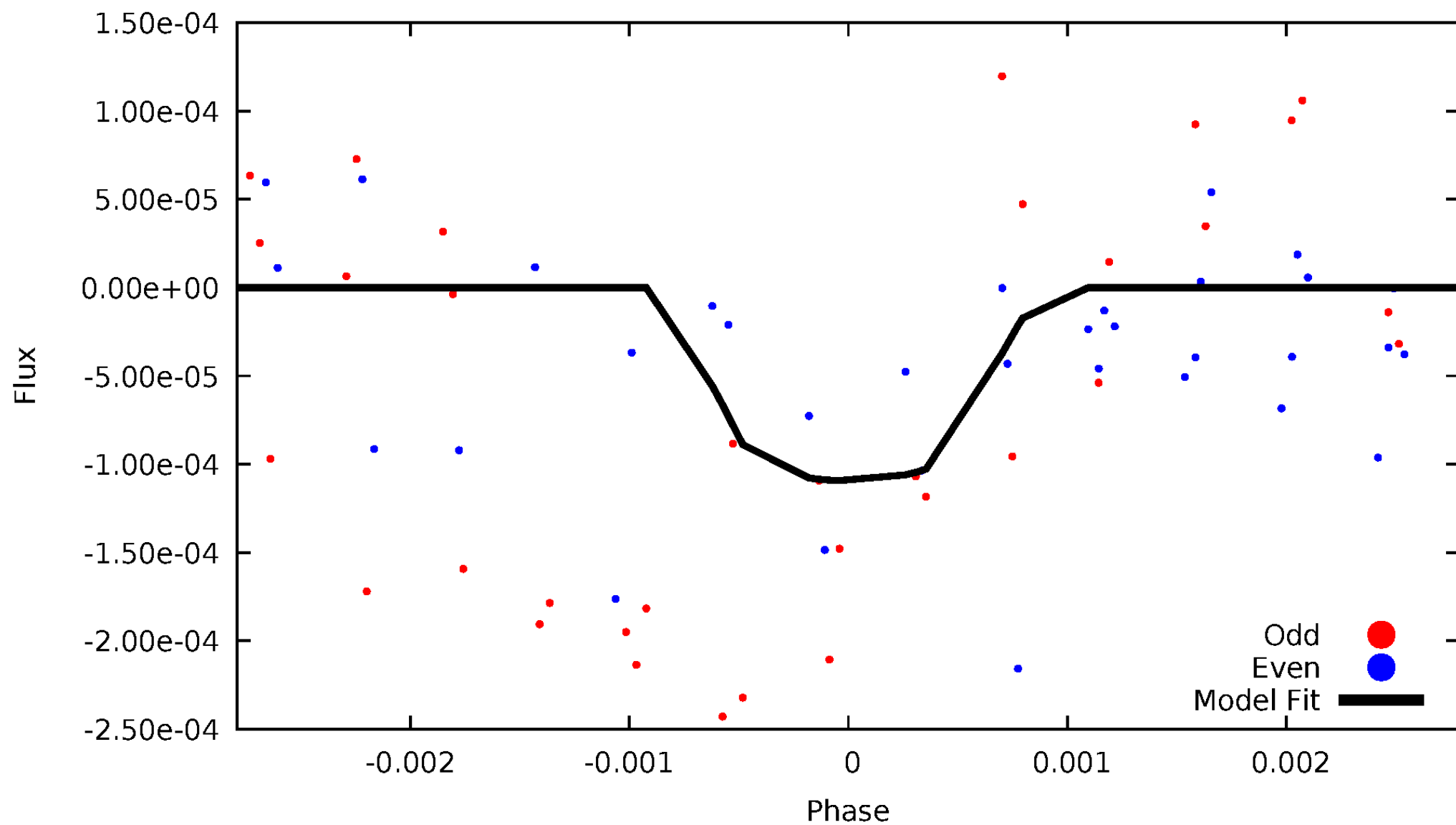


TCE 010552700-09



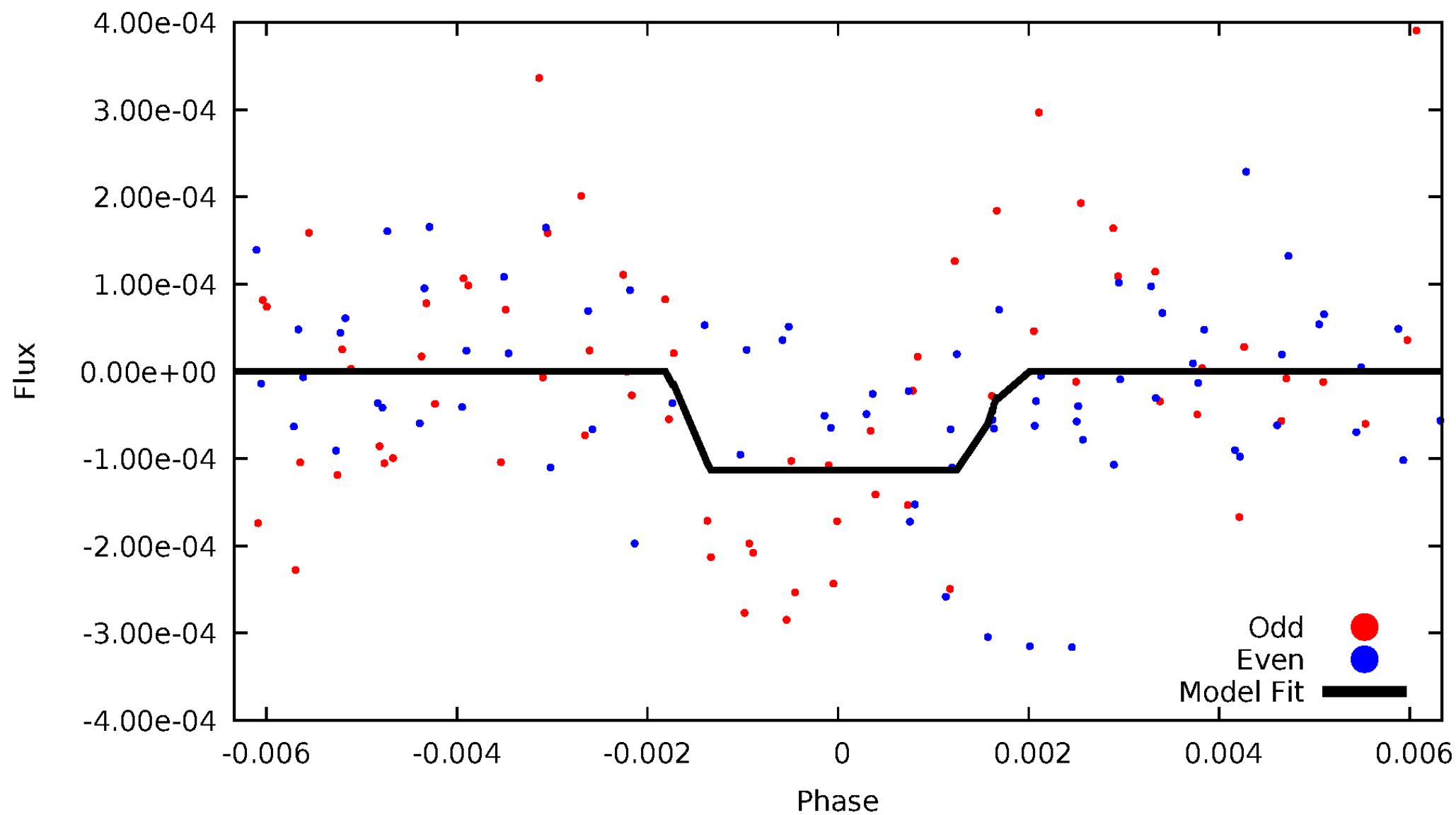
DV Odd/Even

TCE 010552700-09



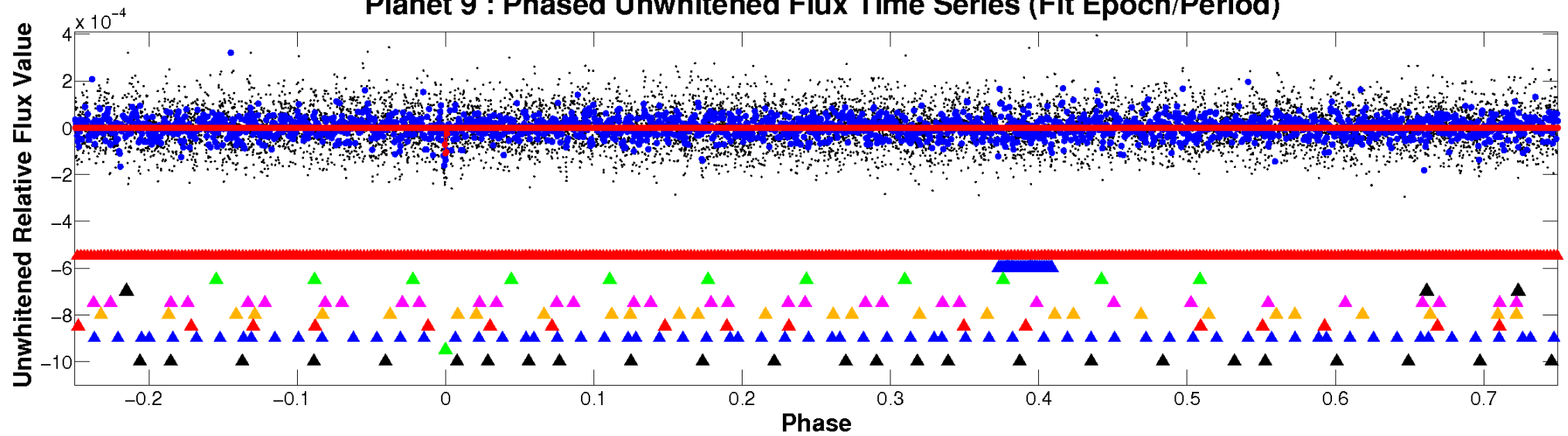
ALT Odd/Even

TCE 010552700-09

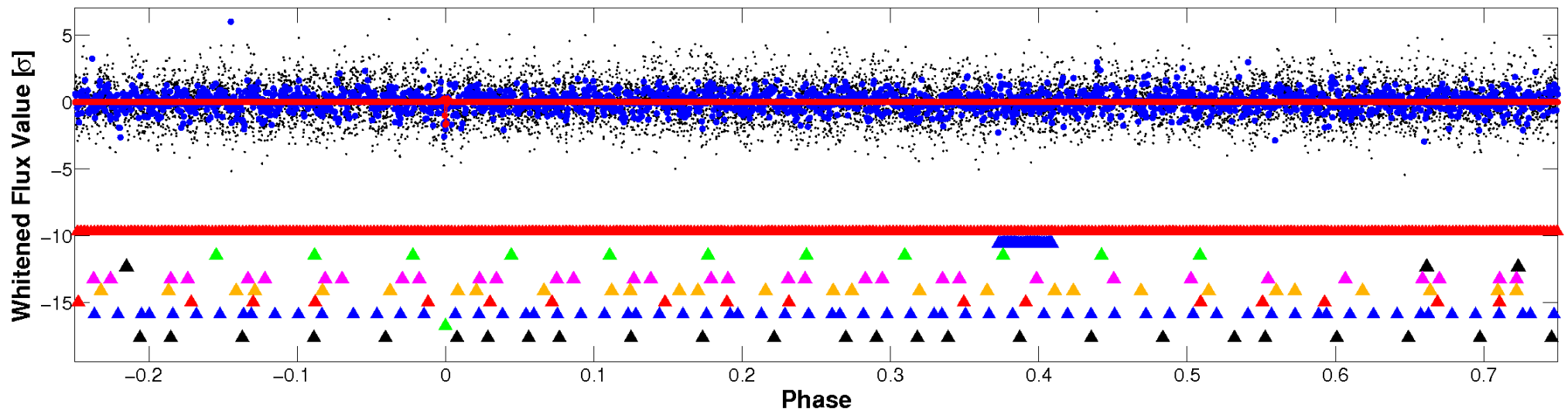


Non-Whitened Vs. Whitened Light Curve

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

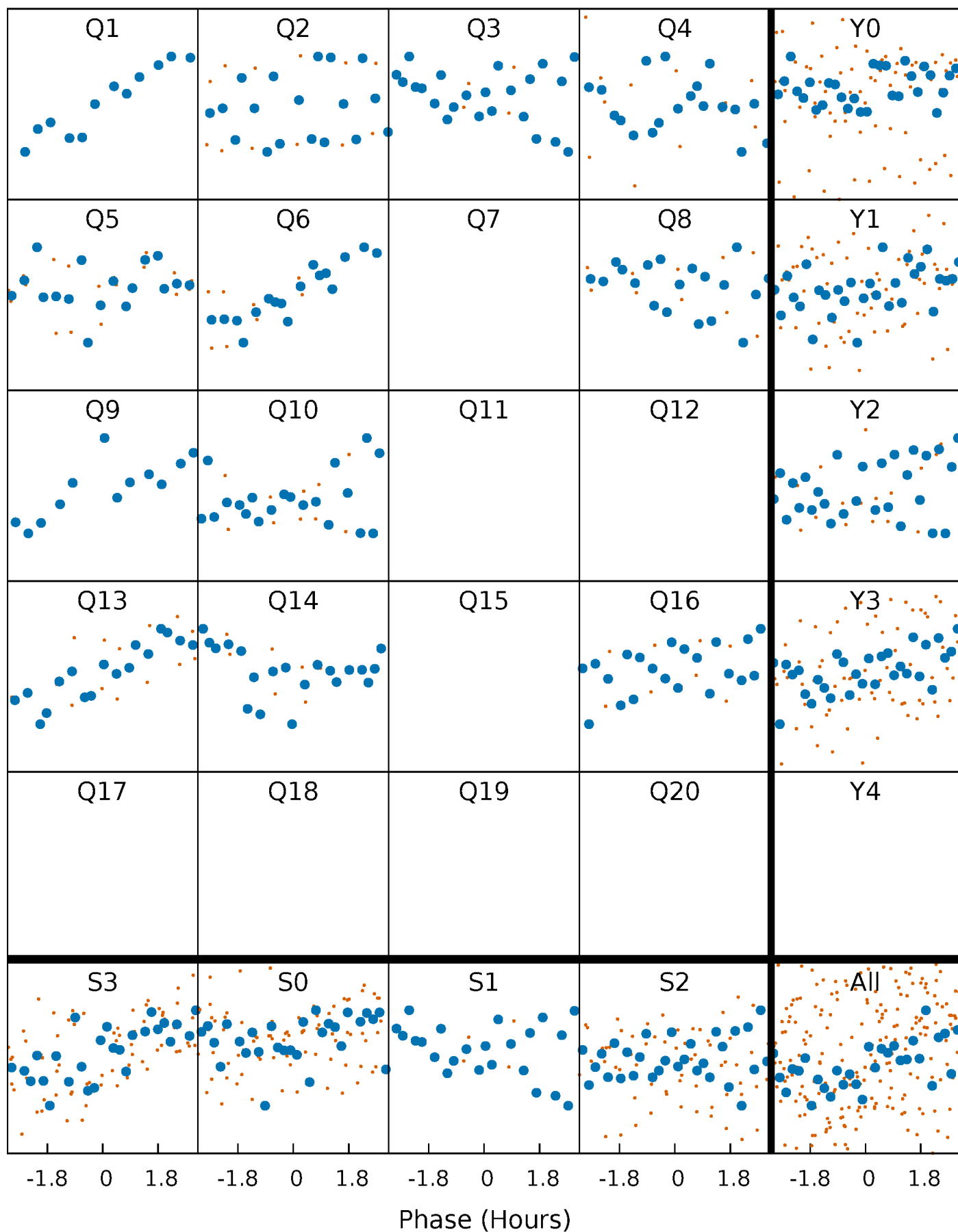


Planet 9 : Phased Whitened Flux Time Series (Fit Epoch/Period)



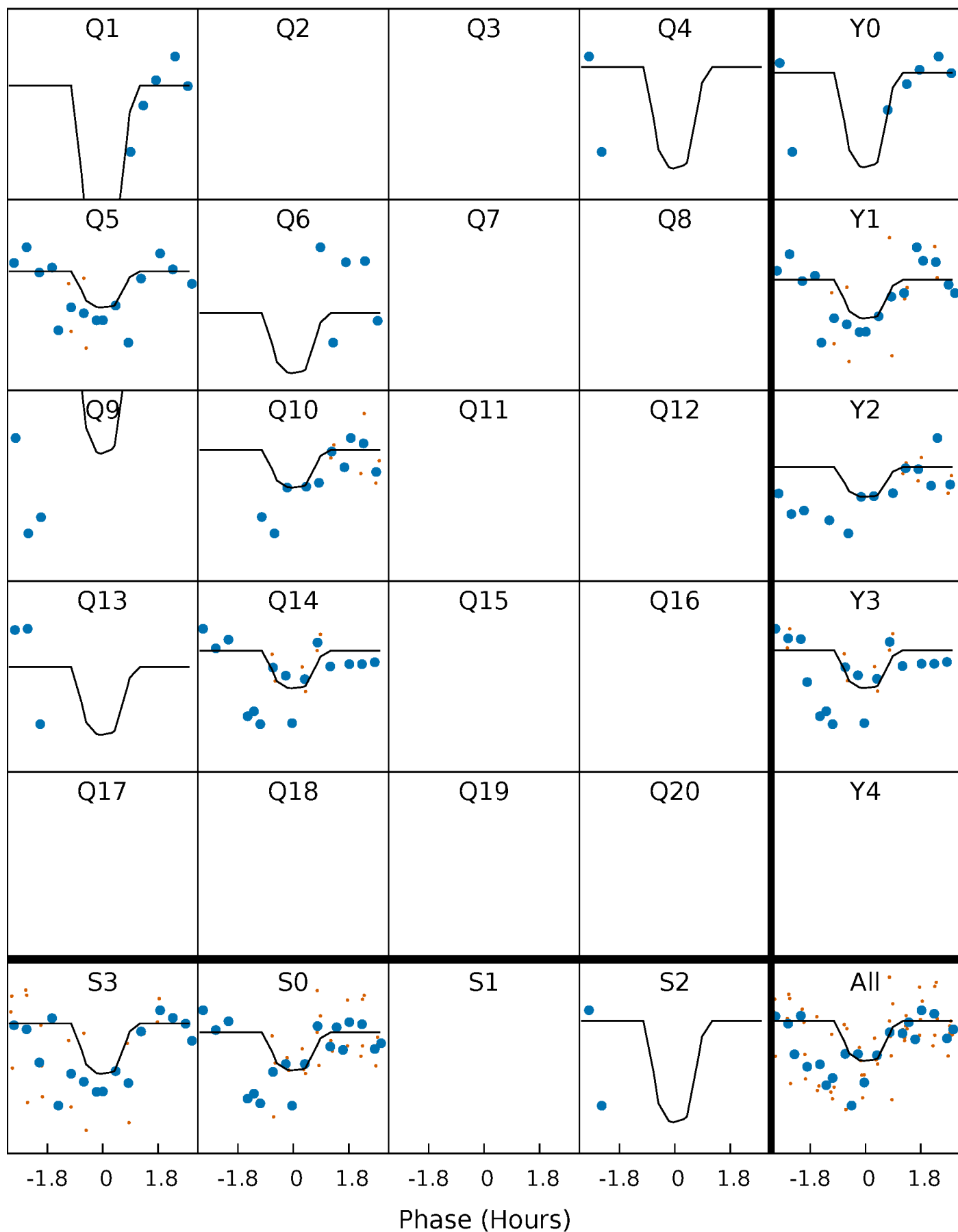
PDC Quarter-Phased Transit Curves

TCE 010552700-09 $P = 46.327798$ Days $T_0 = 145.577777$ (BKJD)



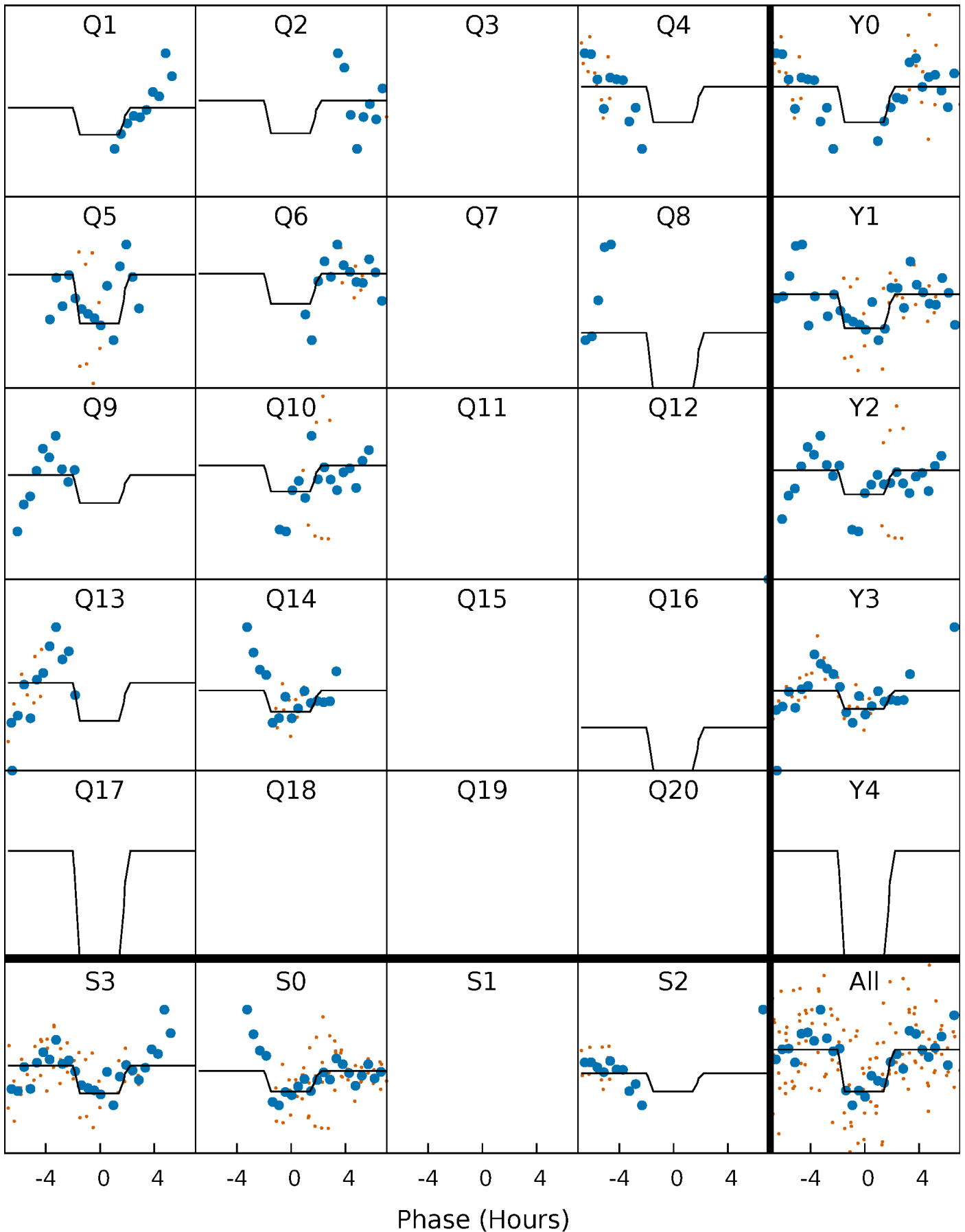
DV Quarter-Phased Transit Curves

TCE 010552700-09 P= 46.327798 Days $T_0=145.577777$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

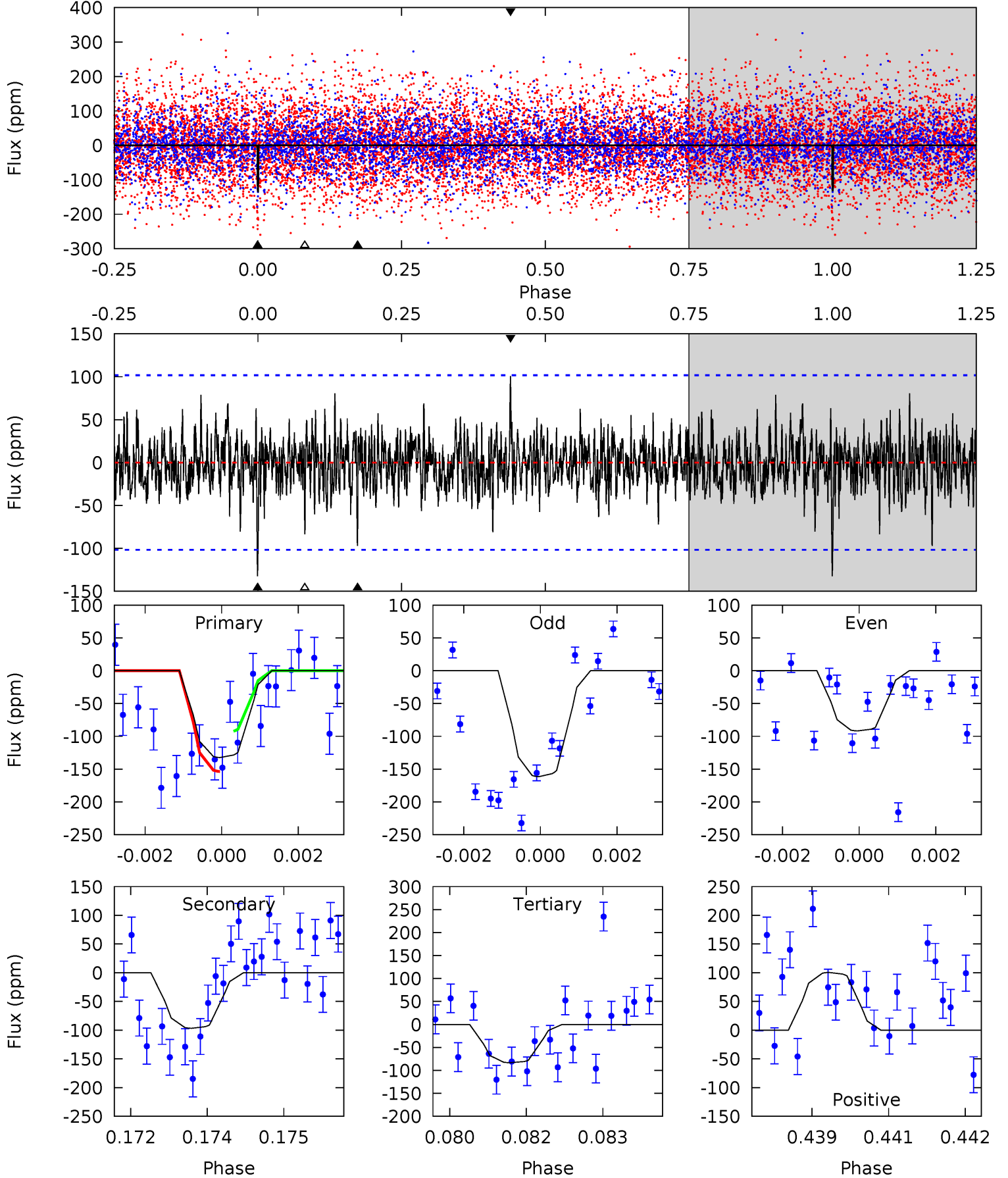
TCE 010552700-09 $P = 46.327780$ Days $T_0 = 145.576482$ (BKJD)



DV Model-Shift Uniqueness Test

010552700-09, P = 46.327798 Days, E = 99.249979 Days

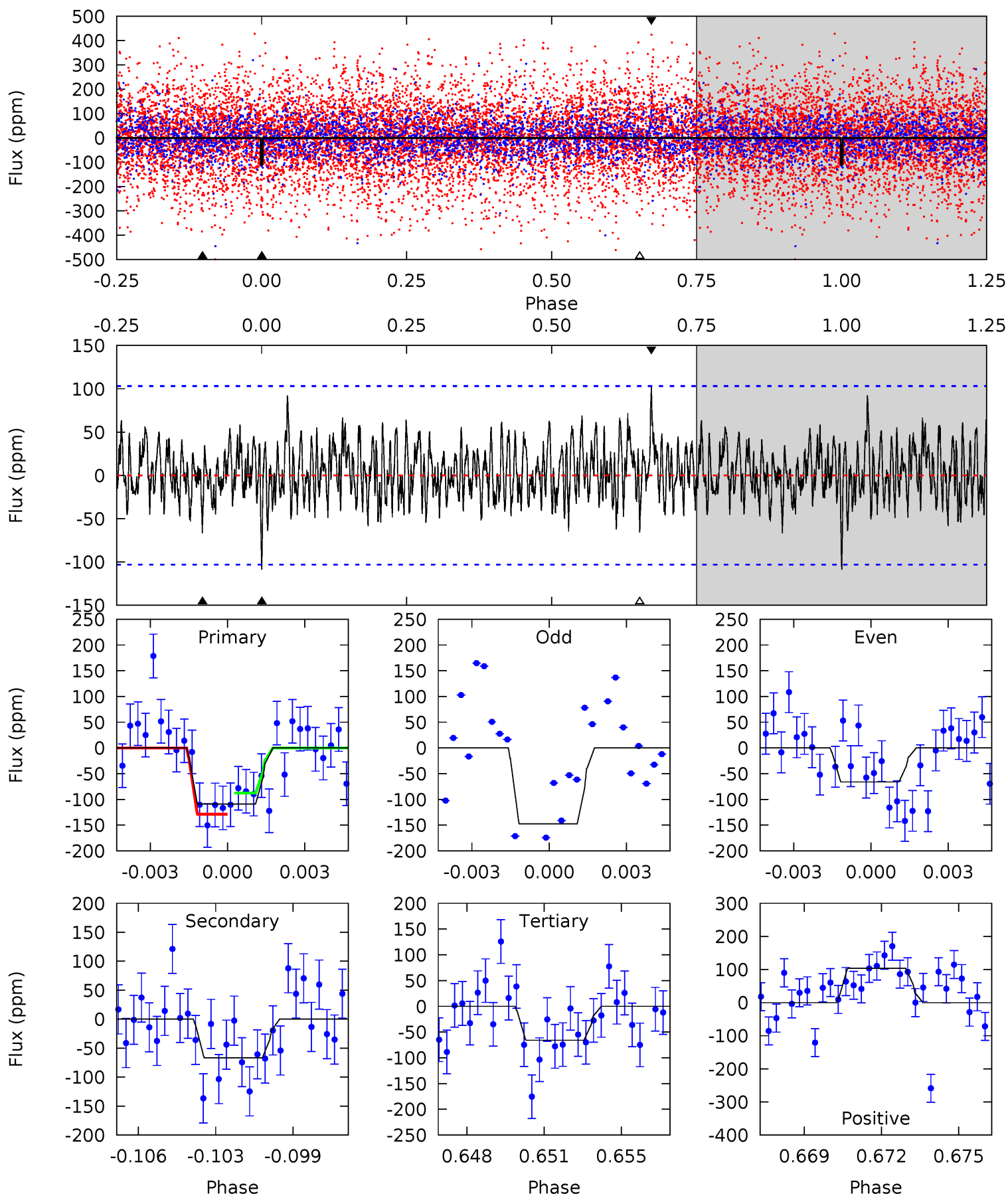
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.98	5.10	4.39	5.30	5.36	3.14	1.23	2.59	1.68	0.71	-0.20	1.83	0.90	0.43	1.61



Alt Model-Shift Uniqueness Test

010552700-09, P = 46.327780 Days, E = 99.248702 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.51	3.39	3.34	5.25	5.23	2.93	1.34	2.18	0.26	0.05	-1.86	2.09	1.02	0.49	1.05



Stellar Parameters For KIC 010552700

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6875^{+164}_{-226}	$3.798^{+0.259}_{-0.111}$	$0.200^{+0.200}_{-0.300}$	$2.856^{+0.503}_{-0.935}$	$1.868^{+0.180}_{-0.361}$	$0.113^{+0.194}_{-0.039}$
	+2%/-3%	+7%/-3%	+100%/-150%	+18%/-33%	+10%/-19%	+172%/-35%
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 010552700-09 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-97 ± 19	$5.83^{+5.90}_{-3.83}$	1271^{+81}_{-96}	4848^{+3763}_{-1057}	139^{+1168}_{-105}
Alt.	-67 ± 20	$5.86^{+5.79}_{-4.10}$	1263^{+83}_{-97}	4576^{+3576}_{-1012}	107^{+1005}_{-82}

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 $A_{obs} \gg 1.0$

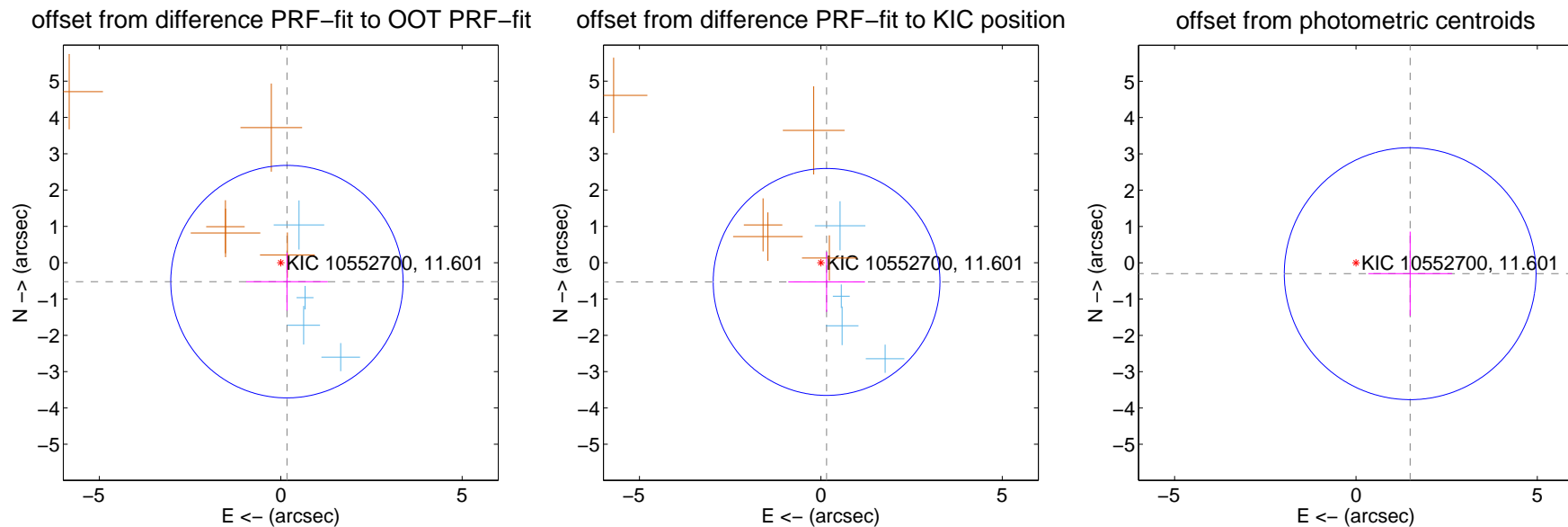
DV Centroid Data

Supplemental centroid analysis for 010552700-09. **Kepler magnitude: 11.60.** Transit SNR 5.53

There are 4 quarters with good PRF difference image offsets

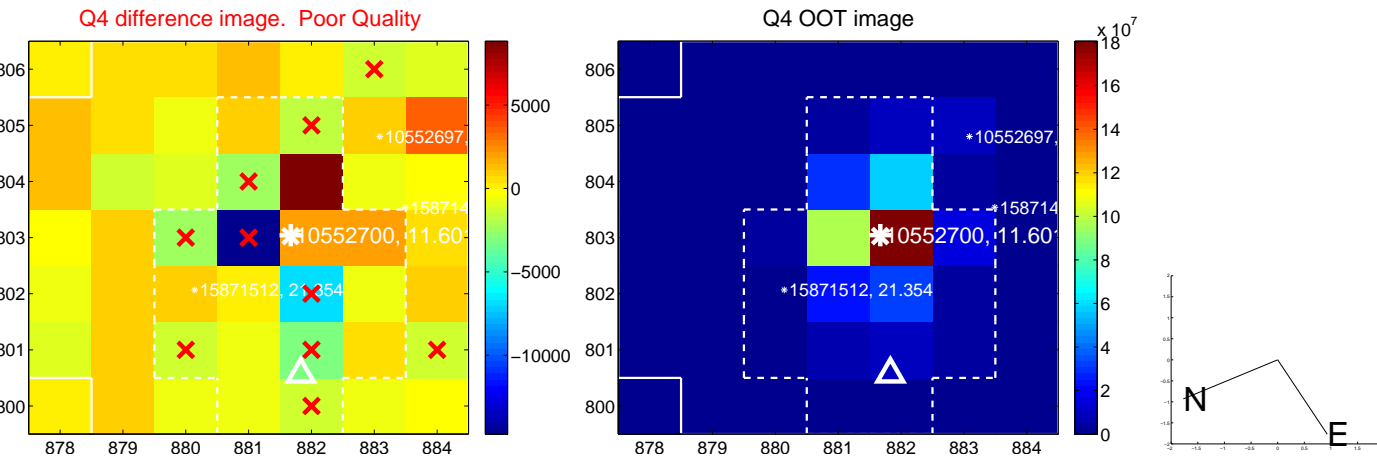
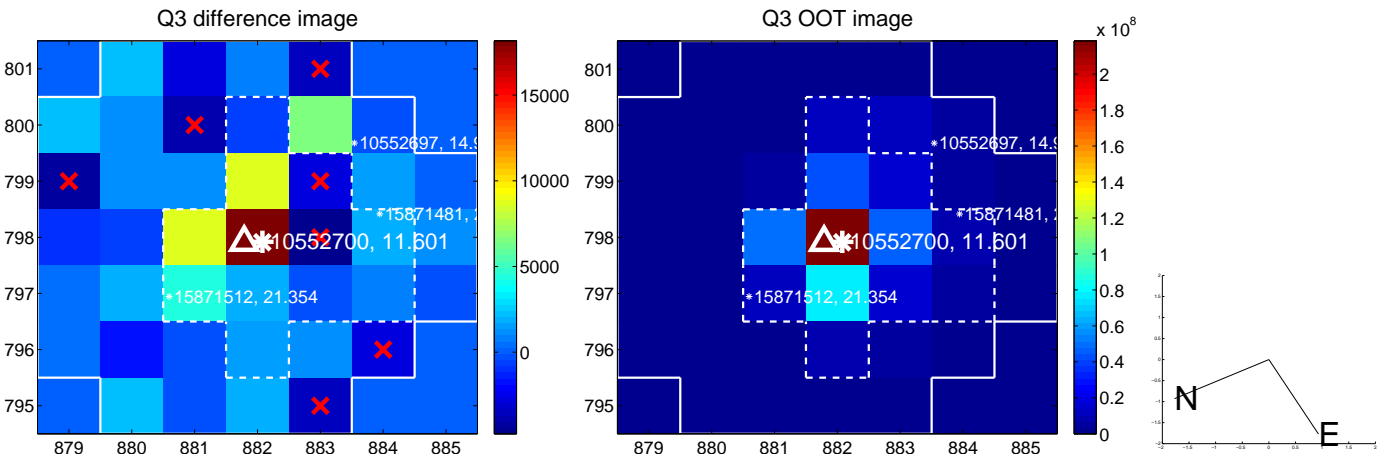
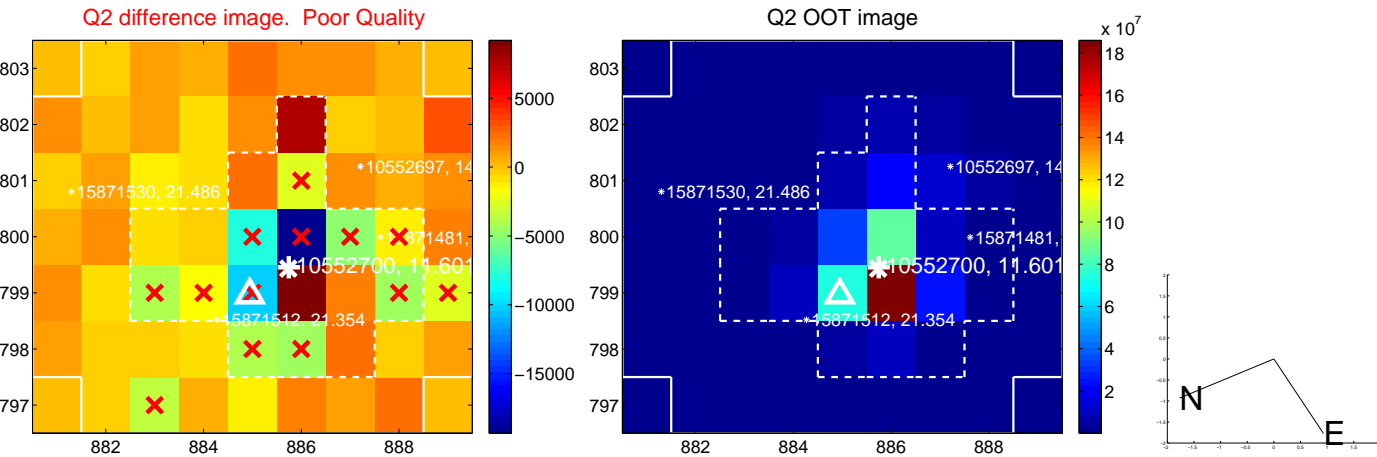
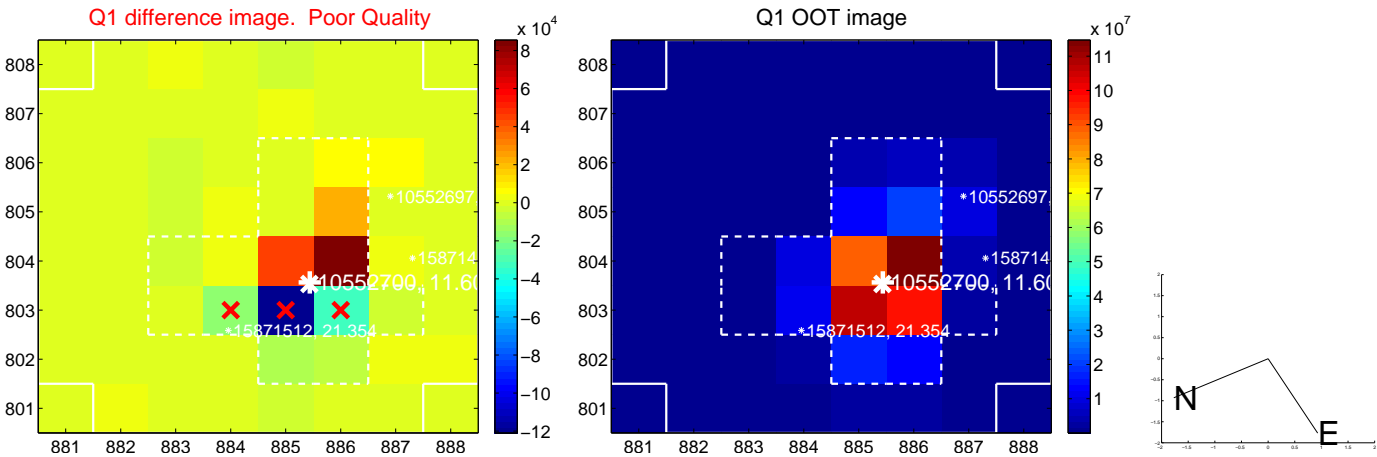
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.549 ± 1.067	0.51	-0.170 ± 1.124	-0.522 ± 0.799
PRF-fit source offset from KIC position	0.553 ± 1.042	0.53	-0.158 ± 1.057	-0.530 ± 0.826
photometric centroid source offset	1.52 ± 1.16	1.32	-1.49 ± 1.16	-0.30 ± 1.16

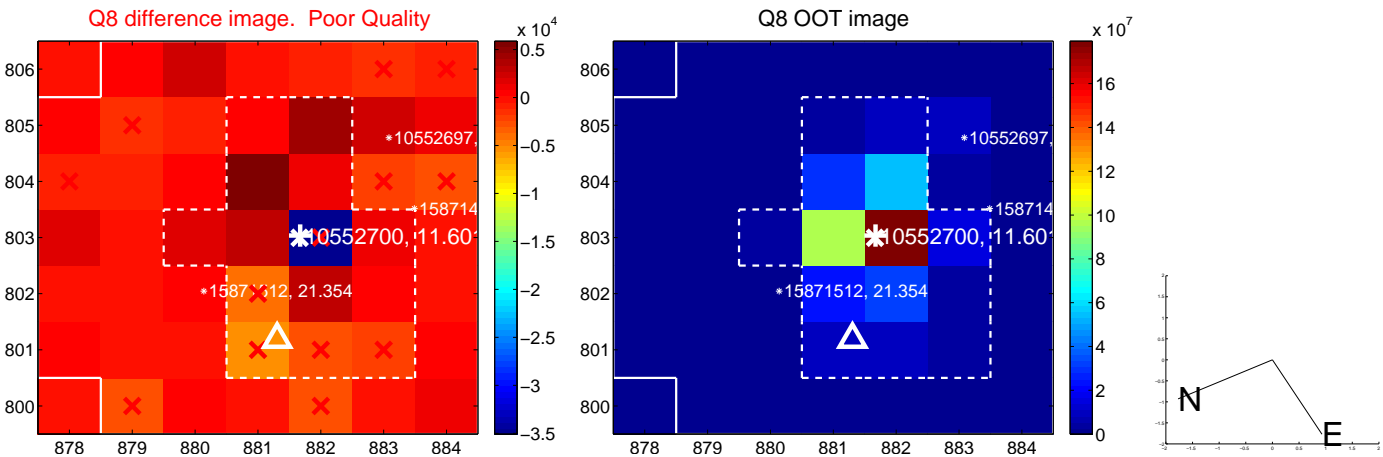
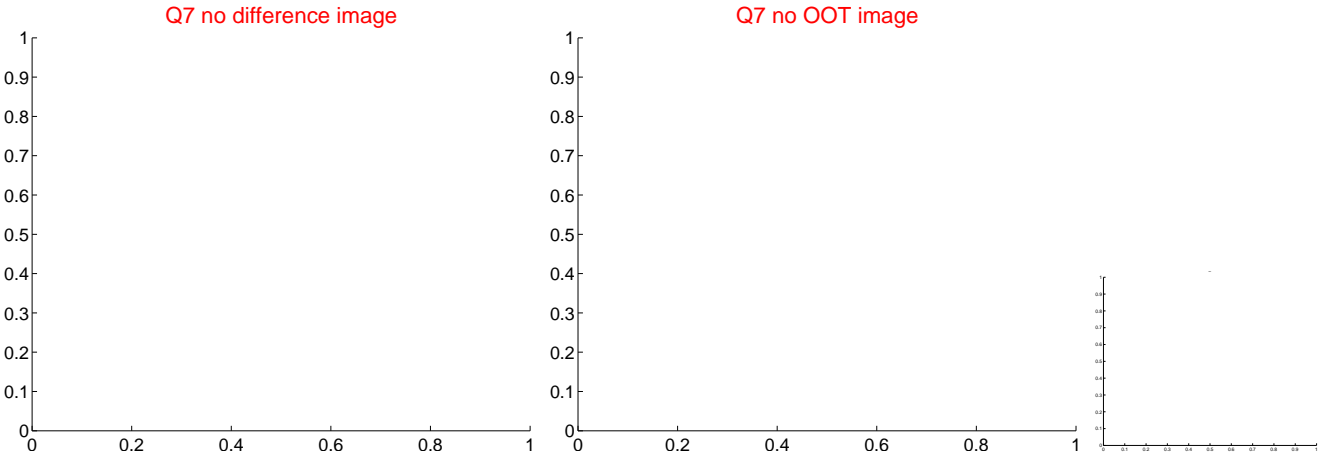
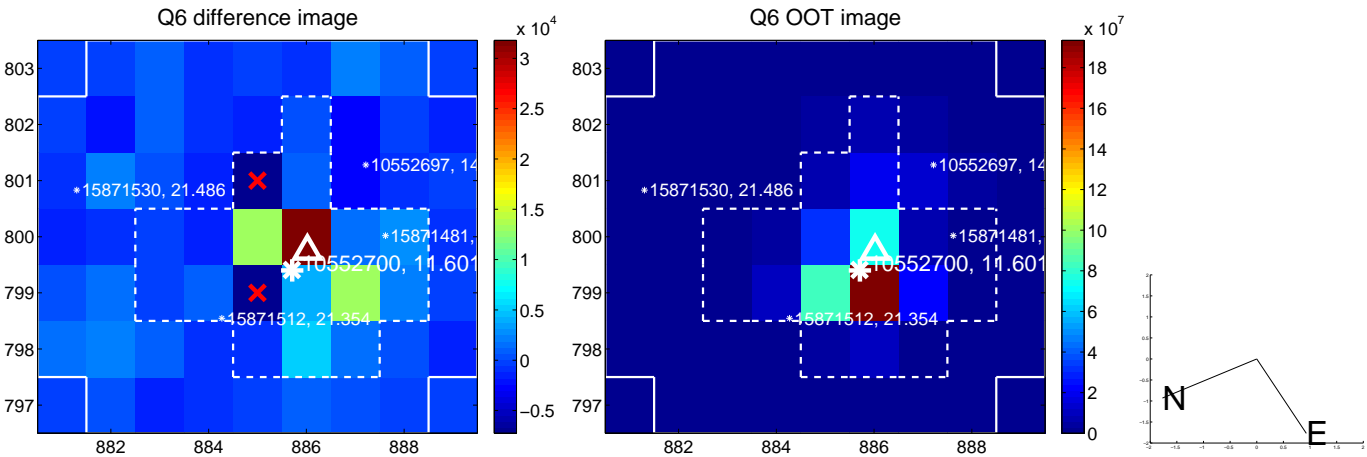
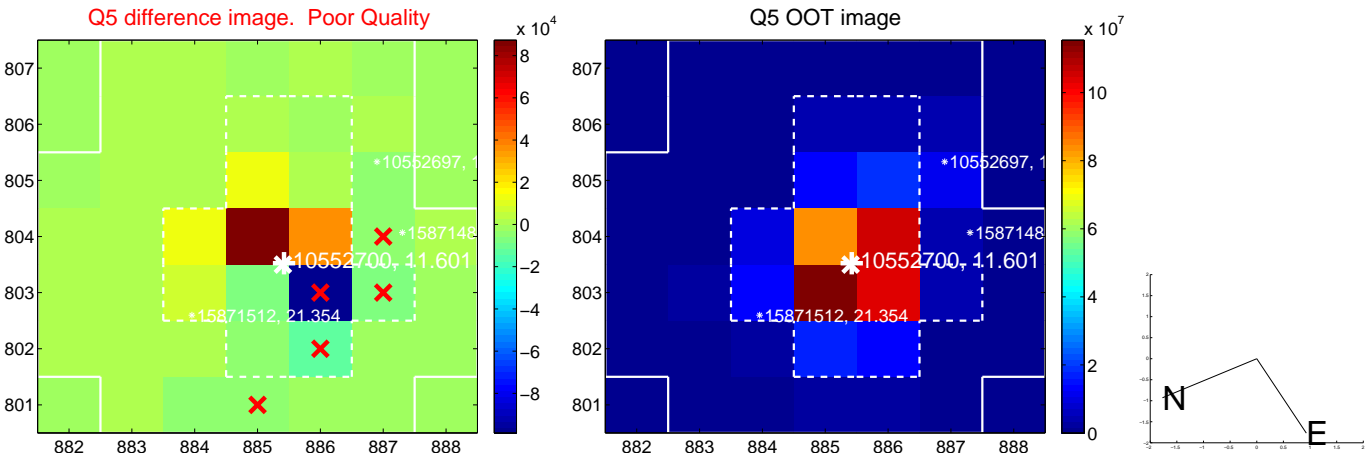


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

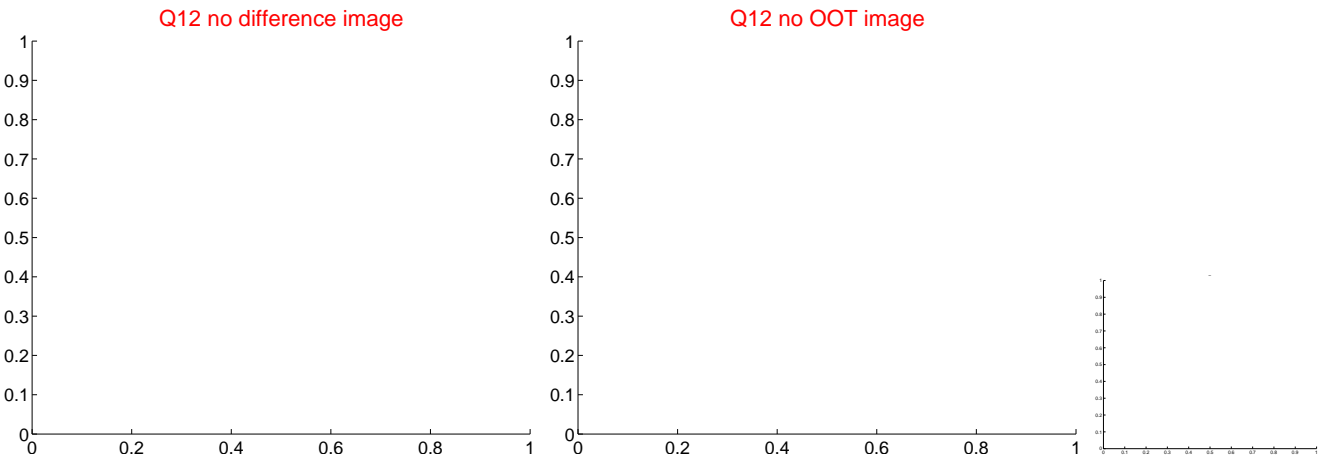
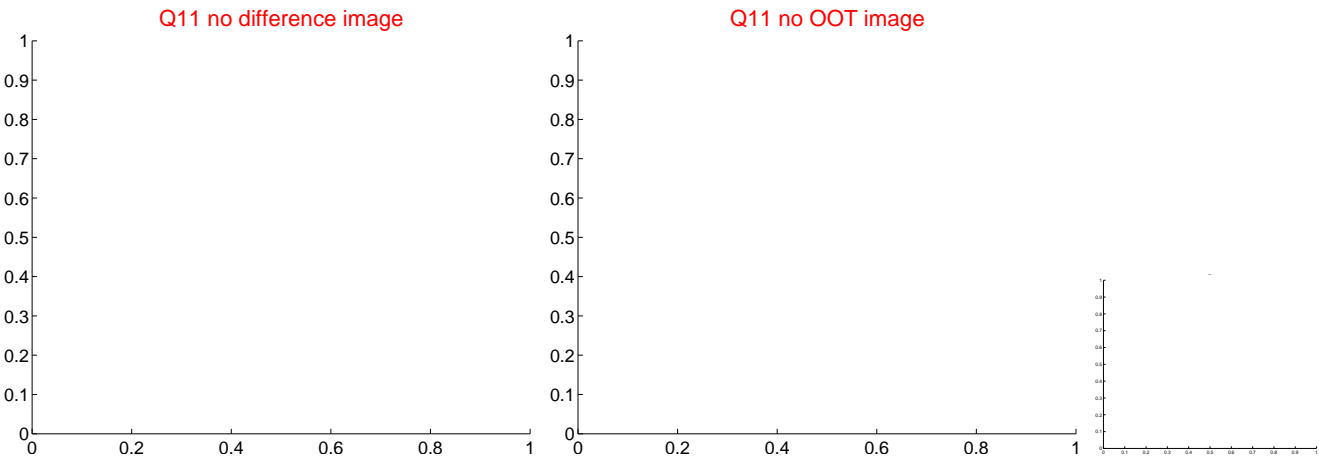
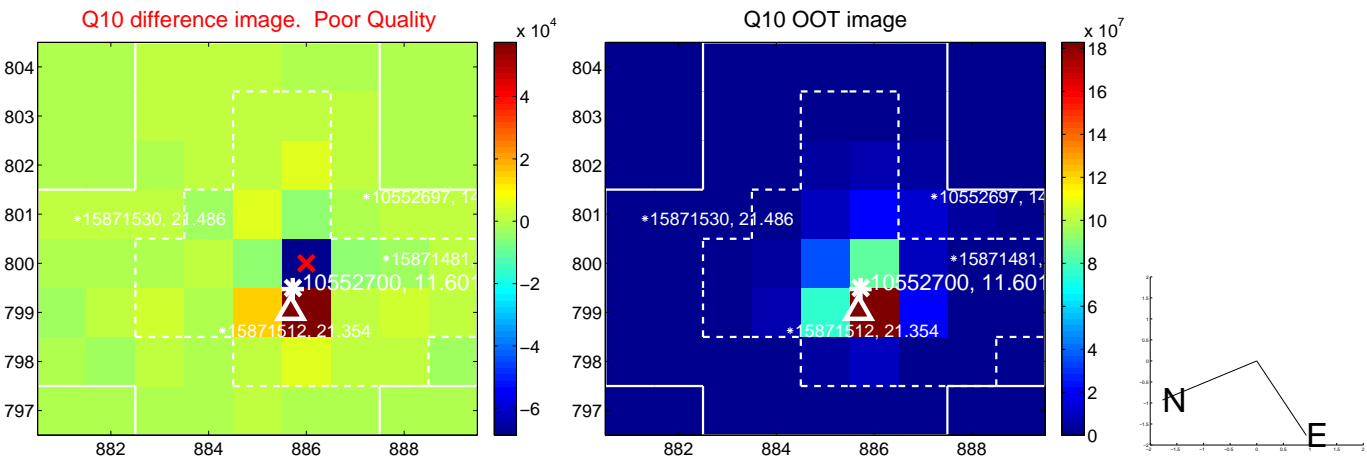
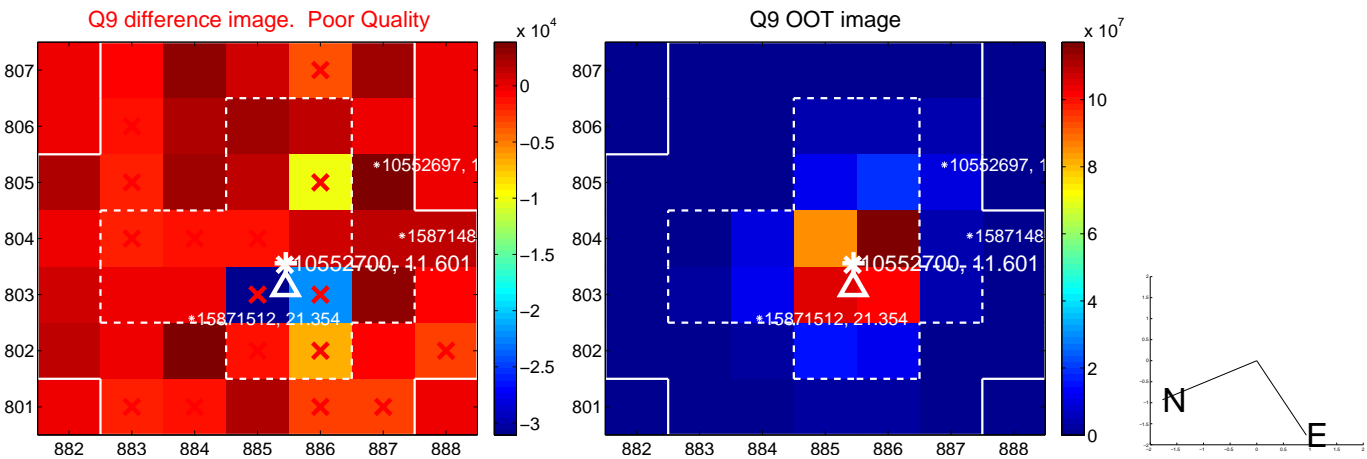
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



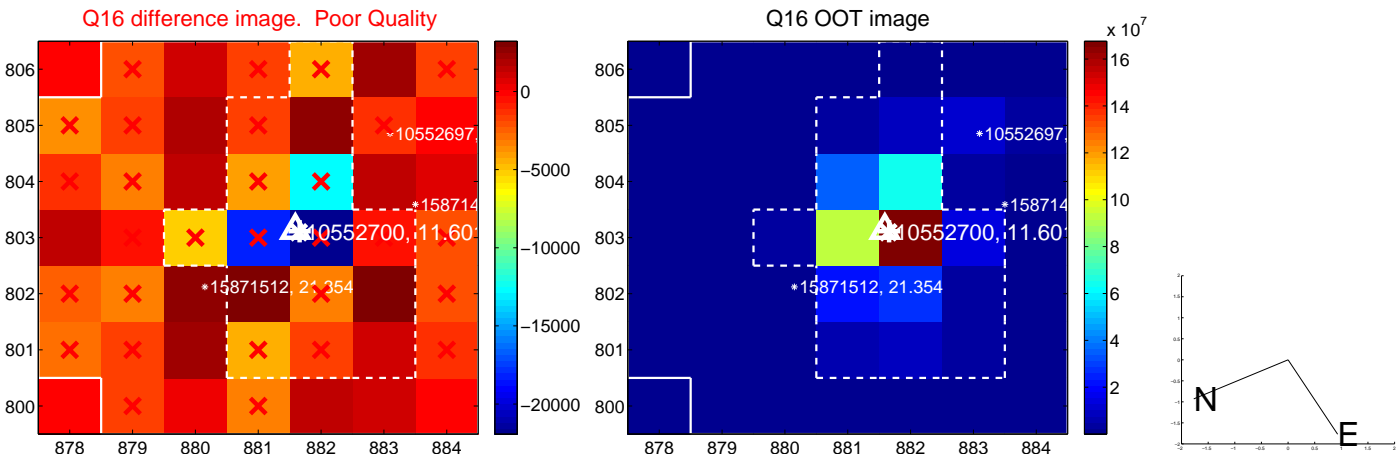
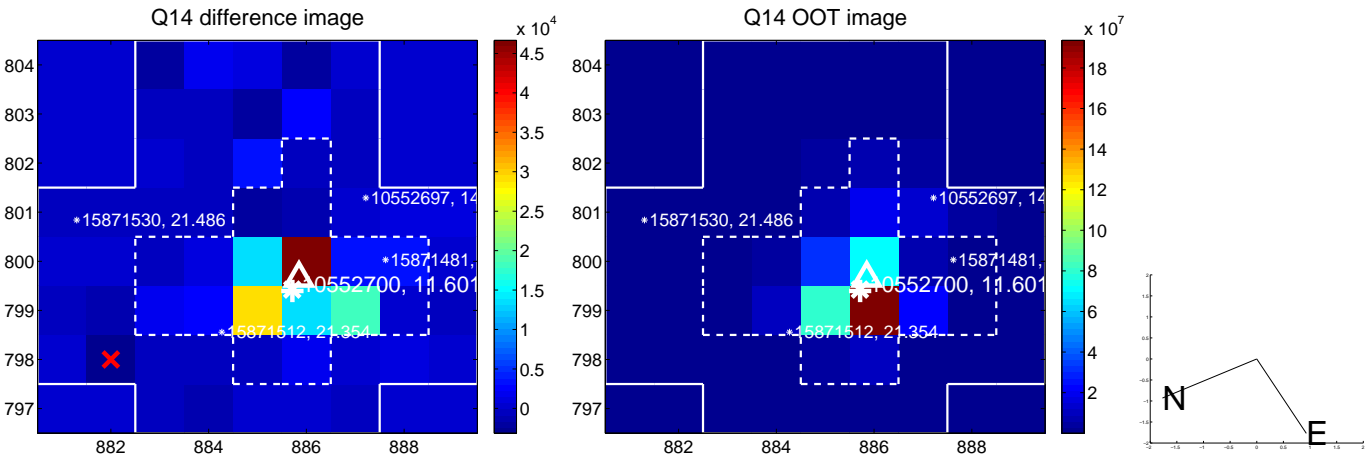
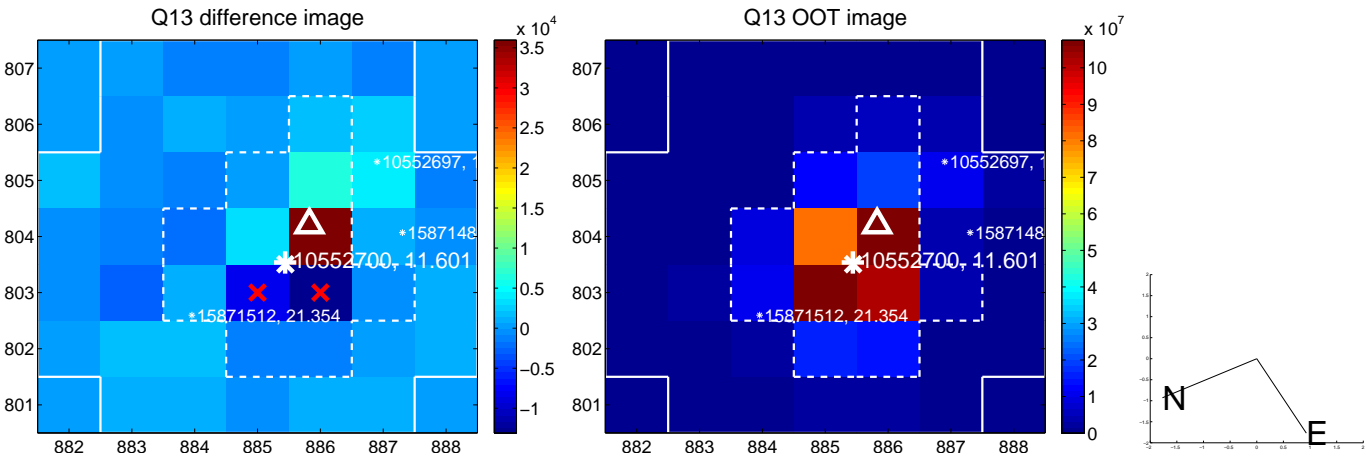
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



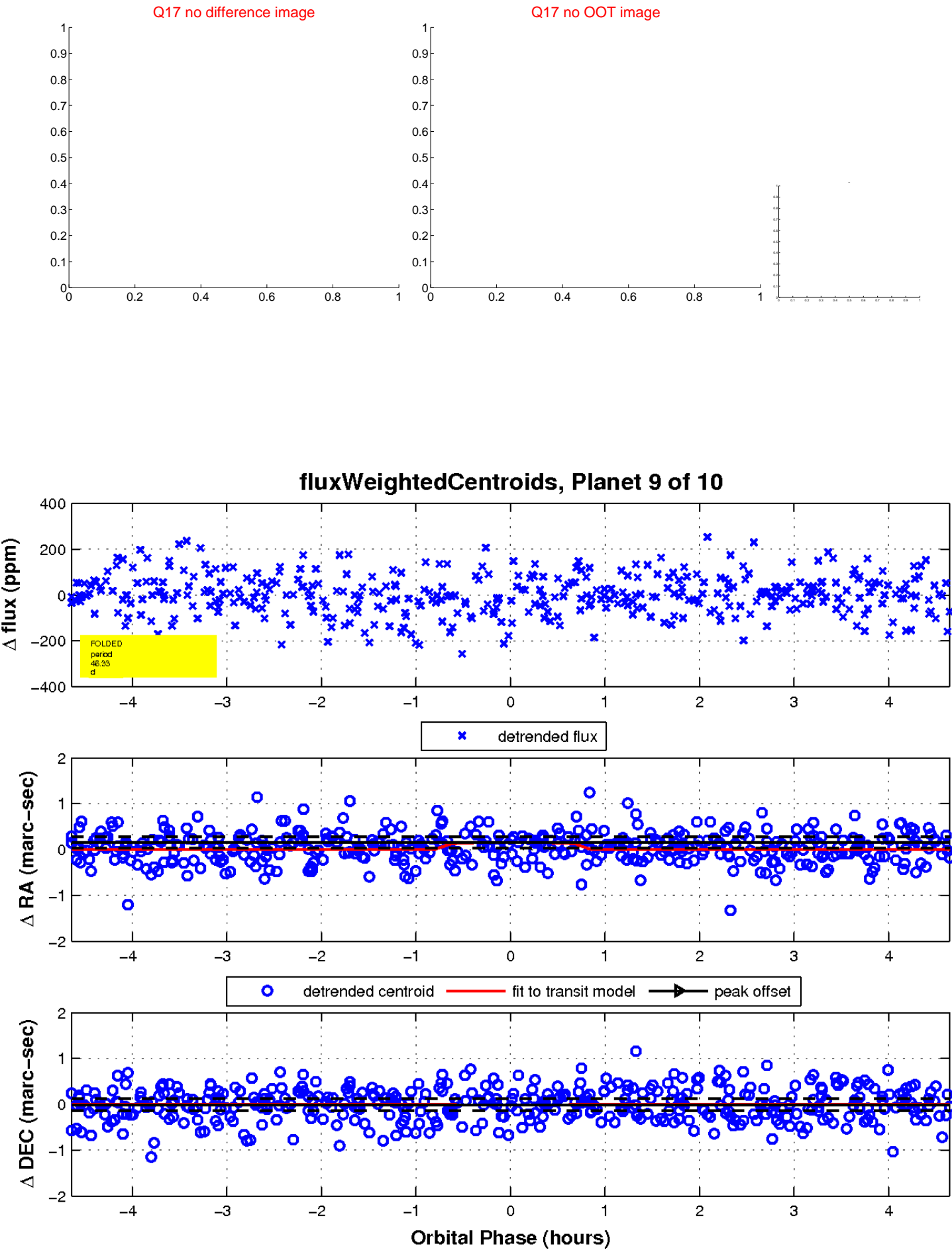
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

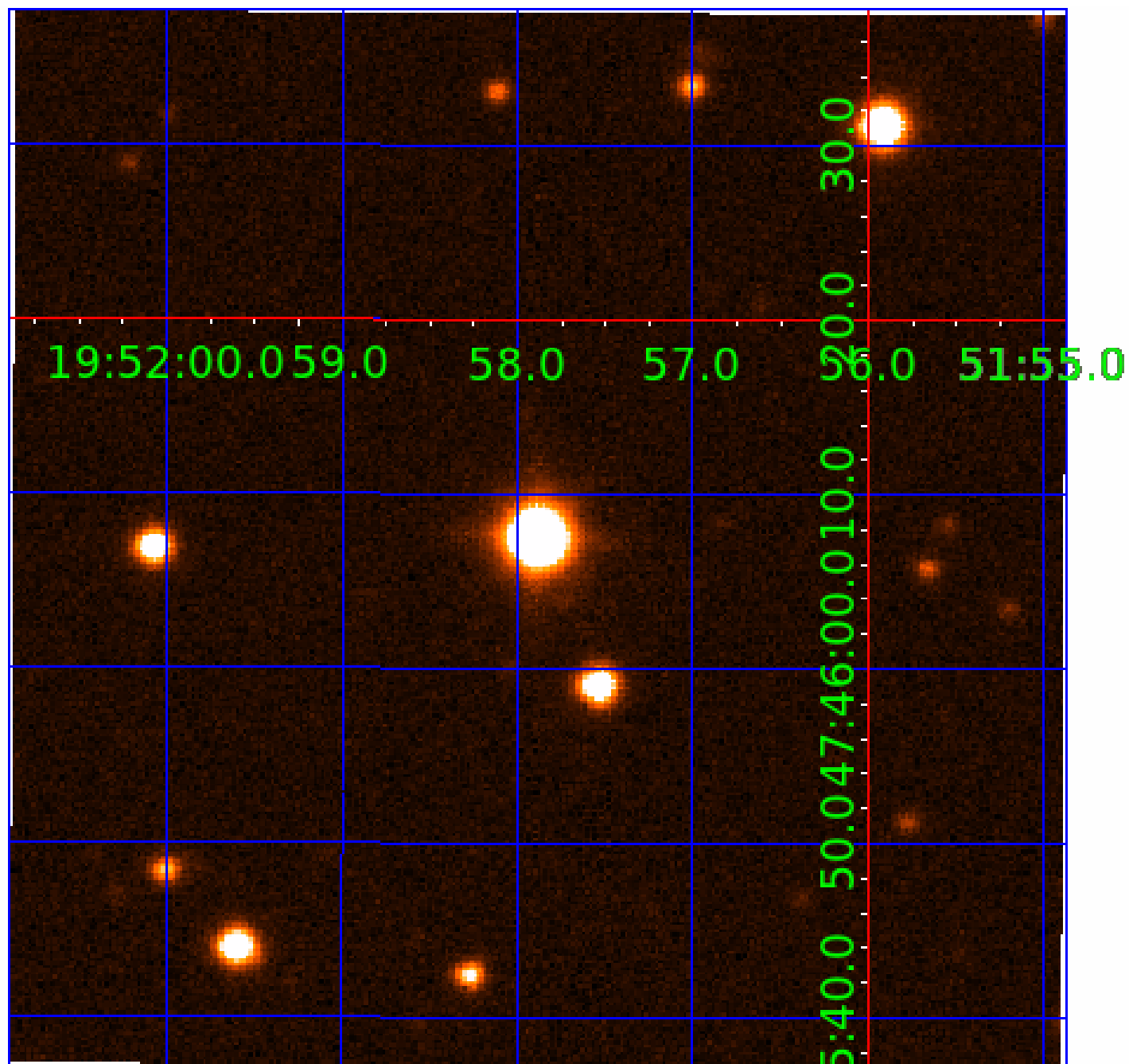


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



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})
010552700-01	OBS	7342.01	0.947637	131.958058	3.9	5.827	10.7	2.8	2.86	6875	0.66	30174.11
010552700-02	OBS	No	46.382972	162.859199	245.5	1.305	9.4	12.1	2.86	6875	5.08	168.53
010552700-03	OBS	No	135.910835	169.141834	206.3	2.598	8.9	7.9	2.86	6875	4.78	40.19
010552700-04	OBS	No	414.093817	367.252579	237.0	16.216	8.1	7.3	2.86	6875	5.10	9.10
010552700-05	OBS	No	43.917309	161.103293	147.1	1.700	8.6	8.6	2.86	6875	3.99	181.26
010552700-06	OBS	No	53.247872	151.349957	91.0	7.054	8.8	6.3	2.86	6875	2.96	140.20
010552700-07	OBS	No	85.256851	152.433220	118.1	3.369	8.6	5.8	2.86	6875	3.38	74.85
010552700-08	OBS	No	21.570584	139.269988	71.5	2.686	8.6	6.6	2.86	6875	2.83	467.74
010552700-09	OBS	No	46.327798	145.577777	109.3	1.551	8.6	5.5	2.86	6875	3.38	168.80
010552700-10	OBS	No	58.468746	146.900902	150.9	2.910	7.9	7.3	2.86	6875	4.03	123.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010552700-01	OBS	FP	0.00	1	0	0	0	LPP_DV
010552700-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
010552700-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
010552700-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
010552700-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV
010552700-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST
010552700-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_UNRESOLVED_OFFSET—HALO_GHOST
010552700-08	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST
010552700-09	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
010552700-10	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS—HALO_GHOST

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

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

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

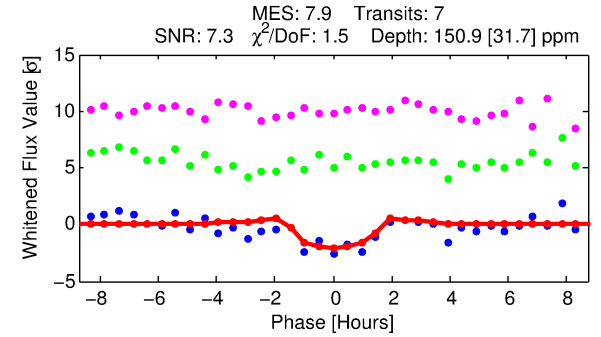
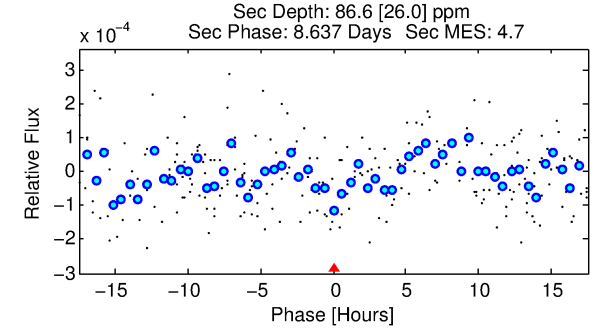
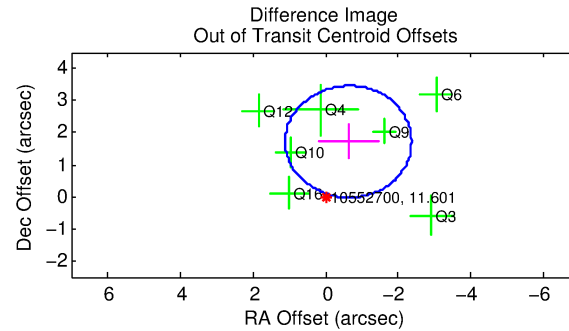
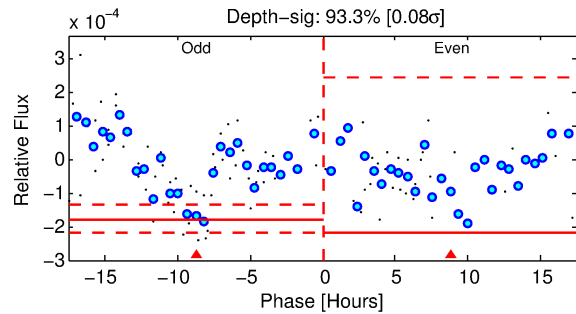
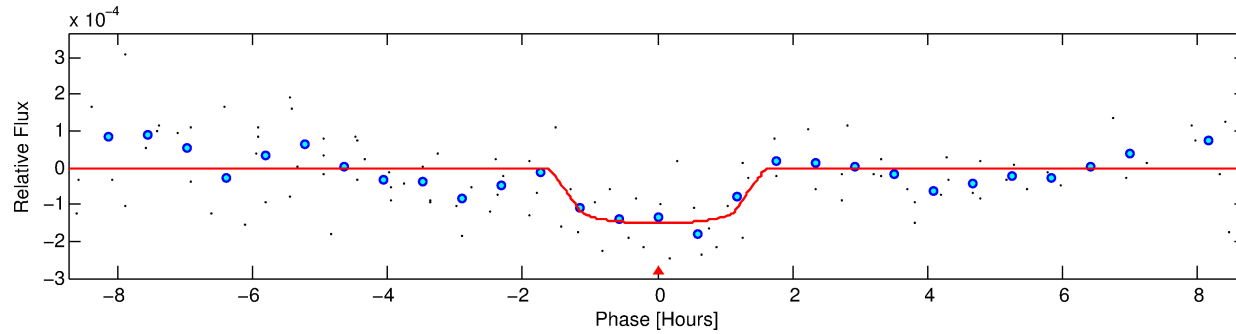
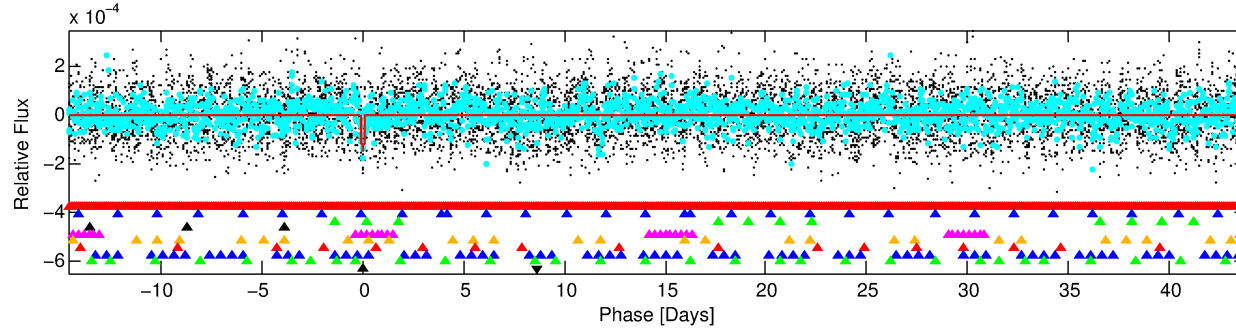
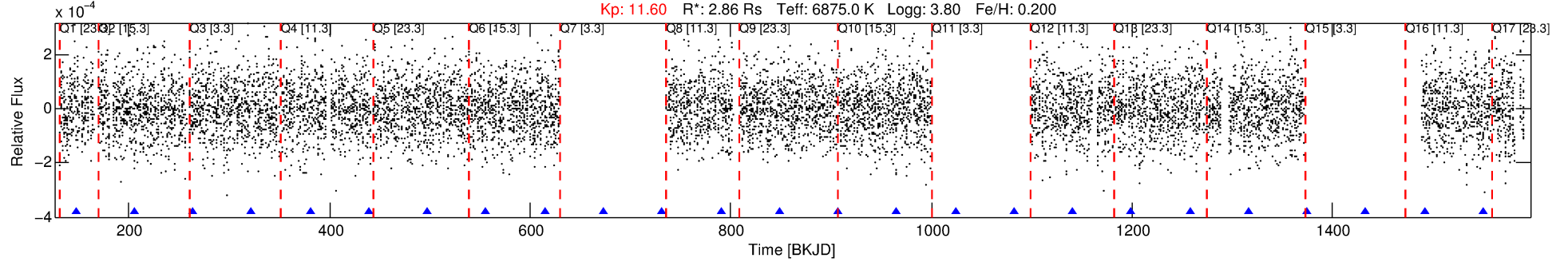
Ephemeris Match Information For 010552700-10

No Significant Match Found

DV One-Page Summary

KIC: 10552700 Candidate: 10 of 10 Period: 58.469 d
KOI: K07342 Corr: No Ephemeris Match

Kp: 11.60 R*: 2.86 Rs Teff: 6875.0 K Logg: 3.80 Fe/H: 0.200



DV Fit Results:

Period = 58.46875 [0.00066] d
Epoch = 146.9009 [0.0086] BKJD
Rp/R* = 0.0129 [0.0352]
a/R* = 76.61 [1263.35]
b = 0.88 [4.21]
Seff = 123.76 [58.44]
Teq = 850 [100] K
Rp = 4.03 [11.05] Re
a = 0.3632 [0.1072] AU
Ag = 386.68 [2116.09] [0.18σ]
Teffp = 5831 [7953] K [0.63σ]

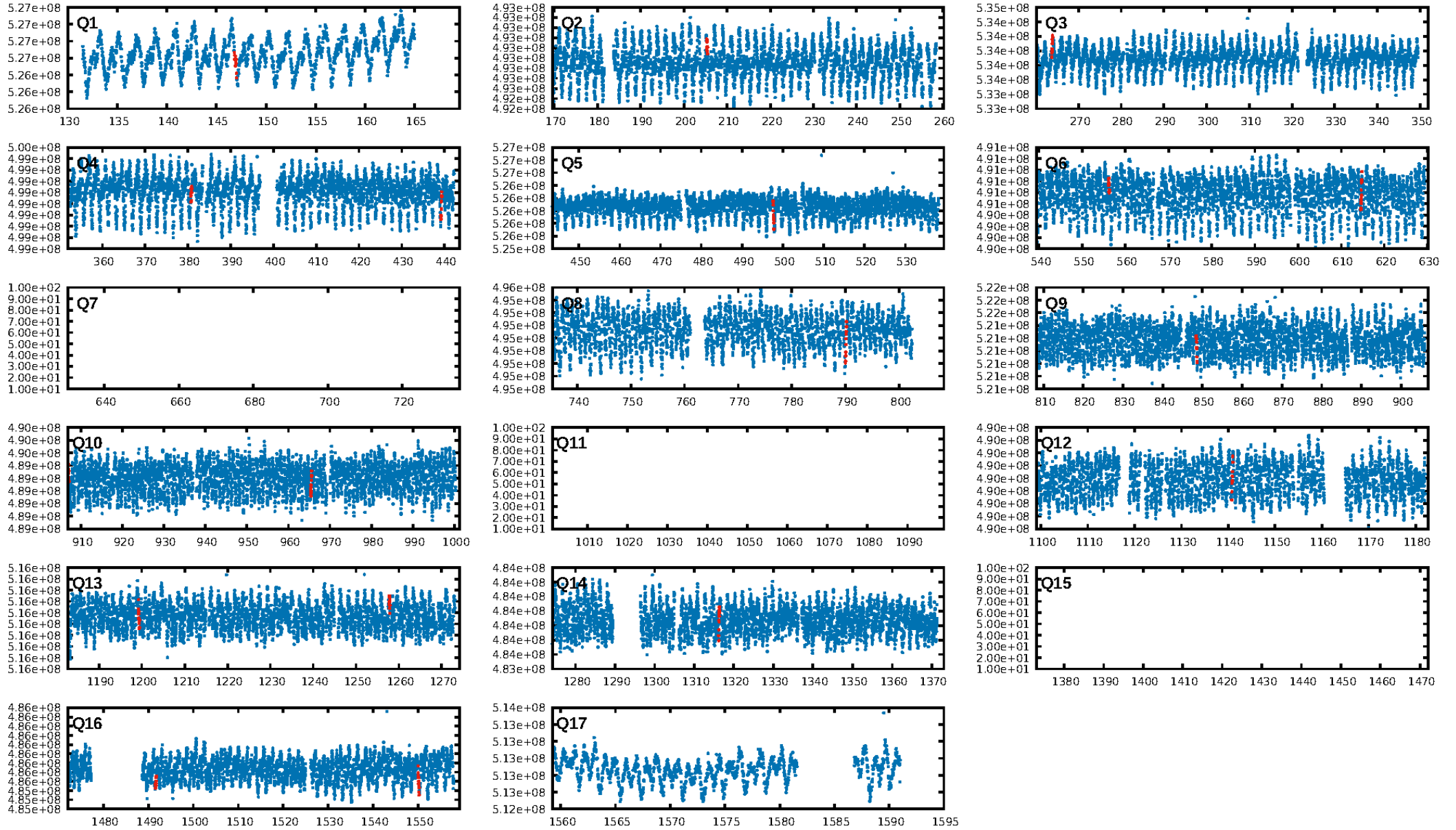
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [16.42σ]
LongPeriod-sig: 100.0% [144.41σ]
ModelChiSquare2-sig: 42.6%
ModelChiSquareGof-sig: 99.8%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: 0.08337
Centroid-sig: 15.6%
Centroid-so: 0.501 arcsec [0.71σ]
OotOffset-rm: 1.829 arcsec [3.15σ]
KicOffset-rm: 1.792 arcsec [3.07σ]
OotOffset-st: 2/1/3/1 [7]
KicOffset-st: 2/1/3/1 [7]
DiffImageQuality-fgm: 0.57 [4/7]
DiffImageOverlap-fno: 0.08 [1/13]

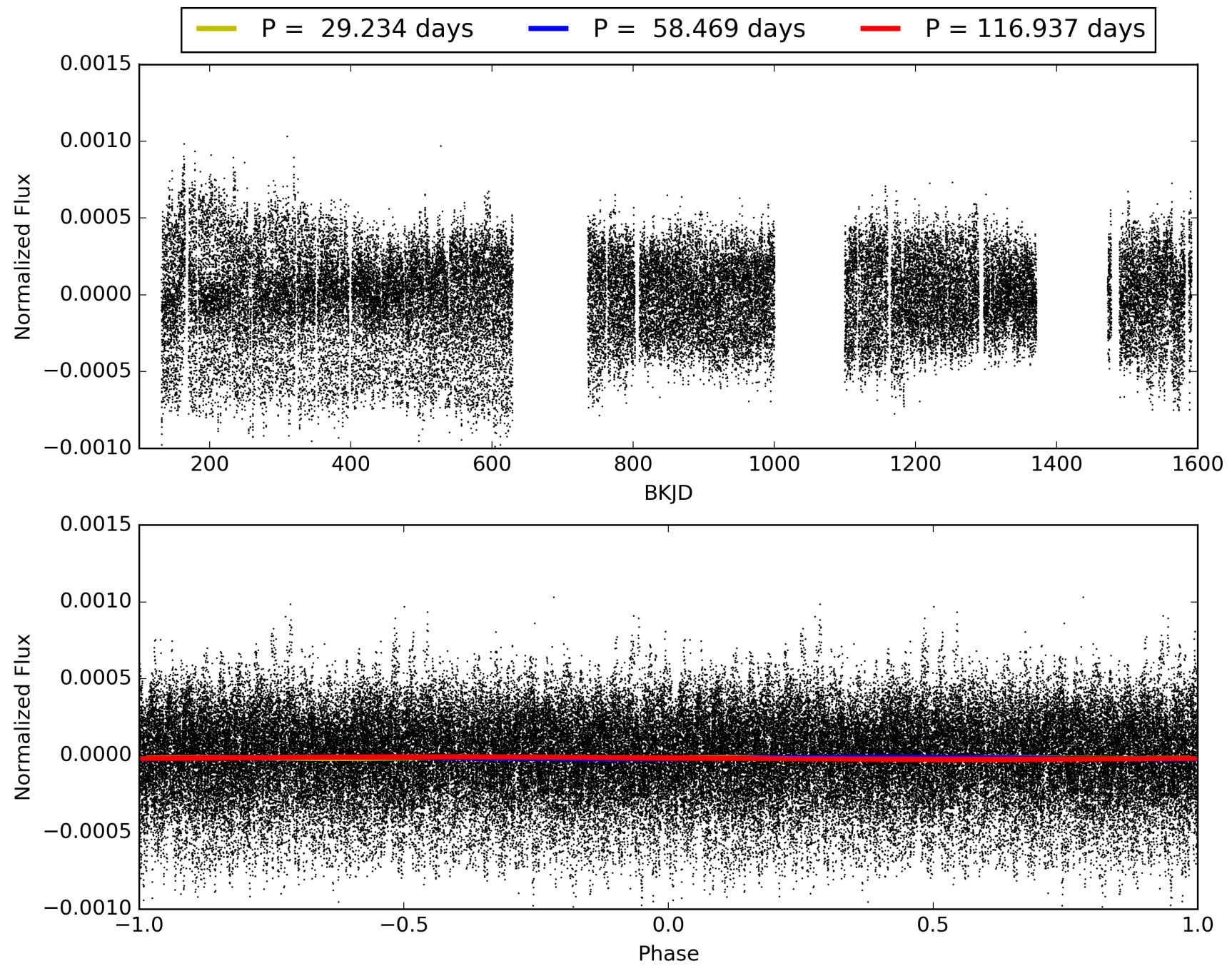
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:51:26 Z

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

TCE 010552700-10, PDC Light Curves

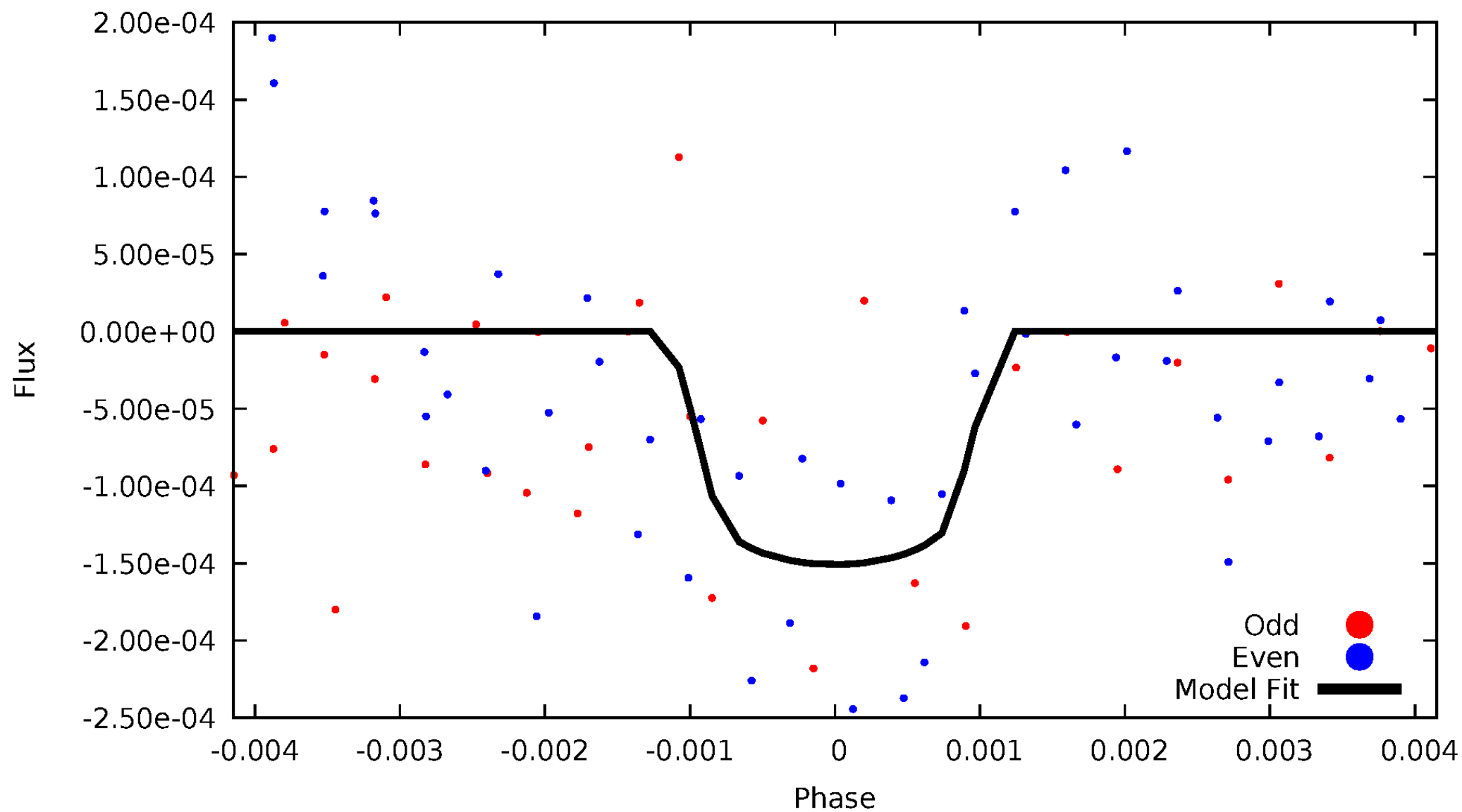


TCE 010552700-10



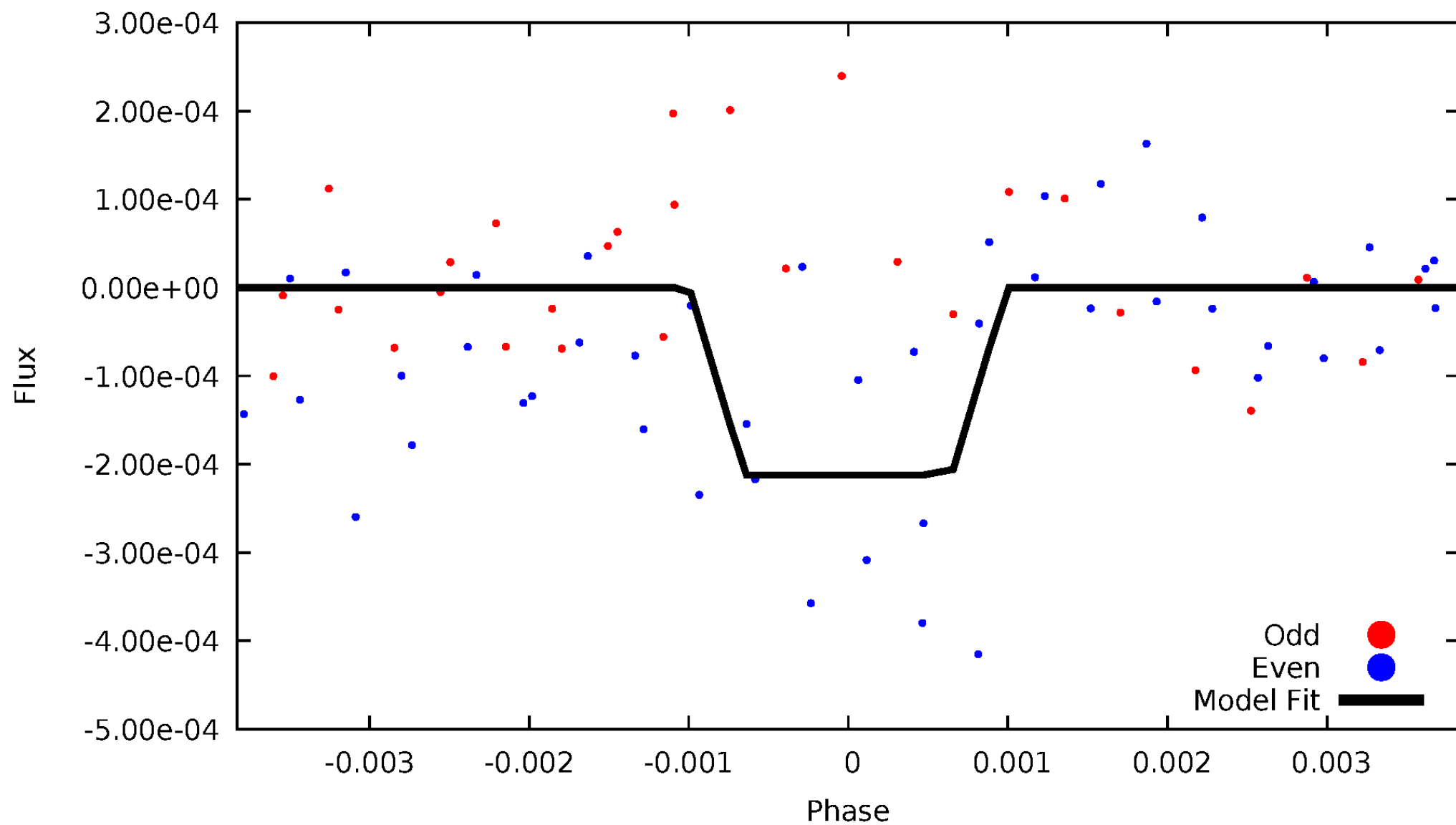
DV Odd/Even

TCE 010552700-10



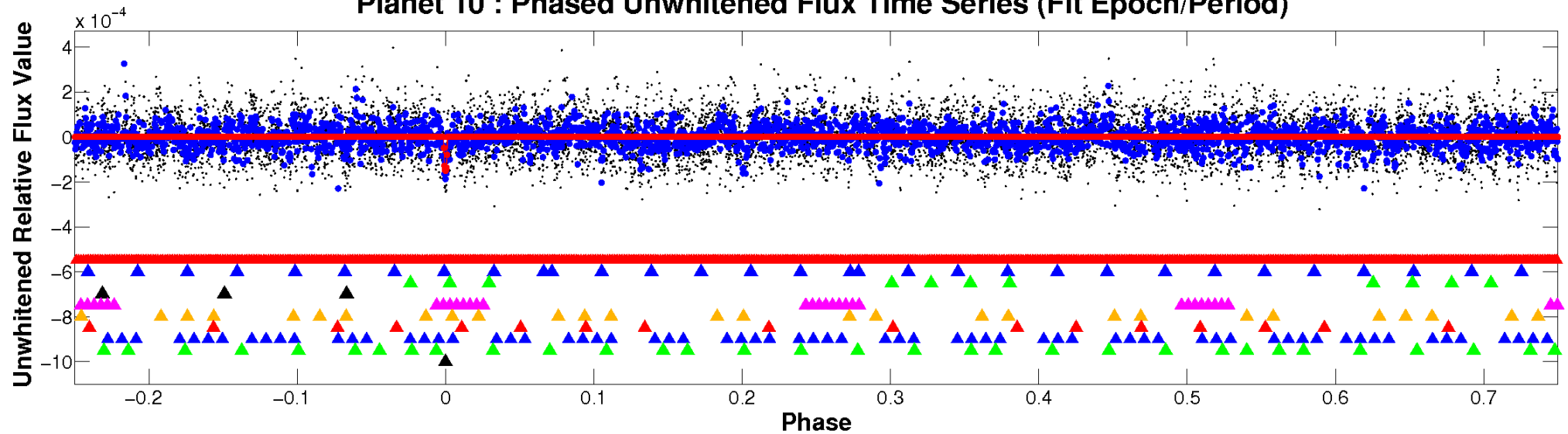
ALT Odd/Even

TCE 010552700-10

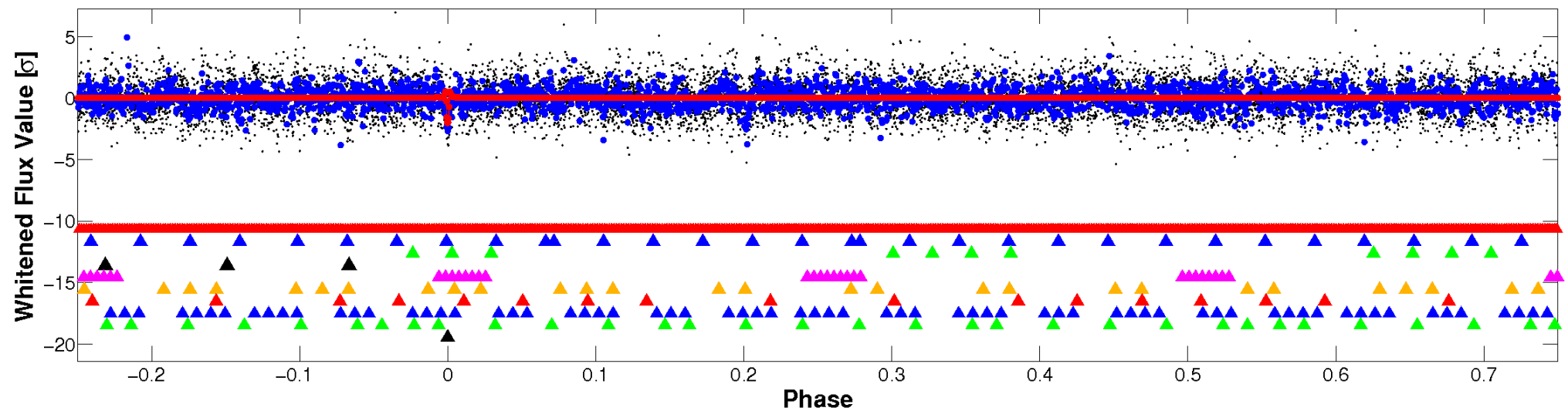


Non-Whitened Vs. Whitened Light Curve

Planet 10 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

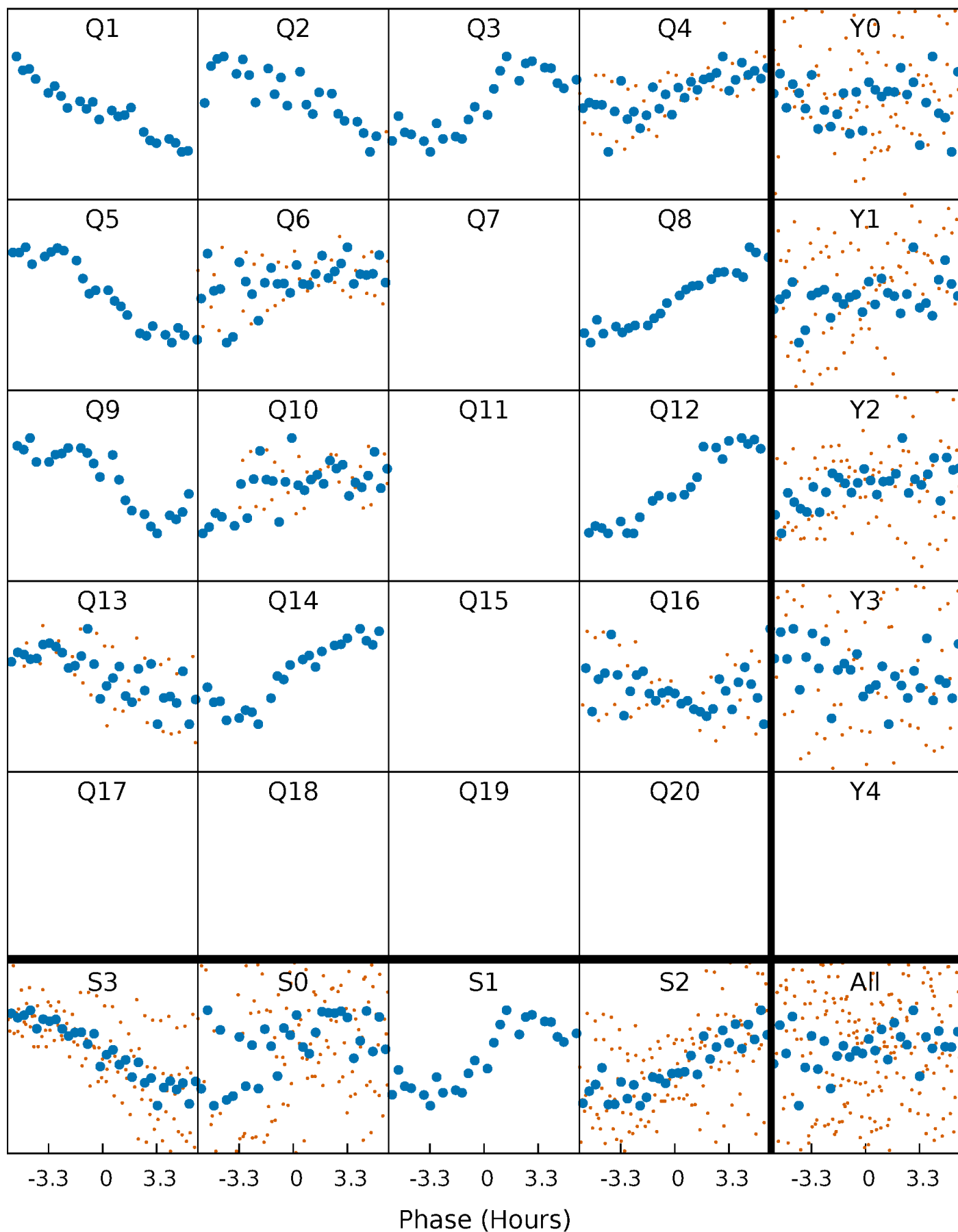


Planet 10 : Phased Whitened Flux Time Series (Fit Epoch/Period)



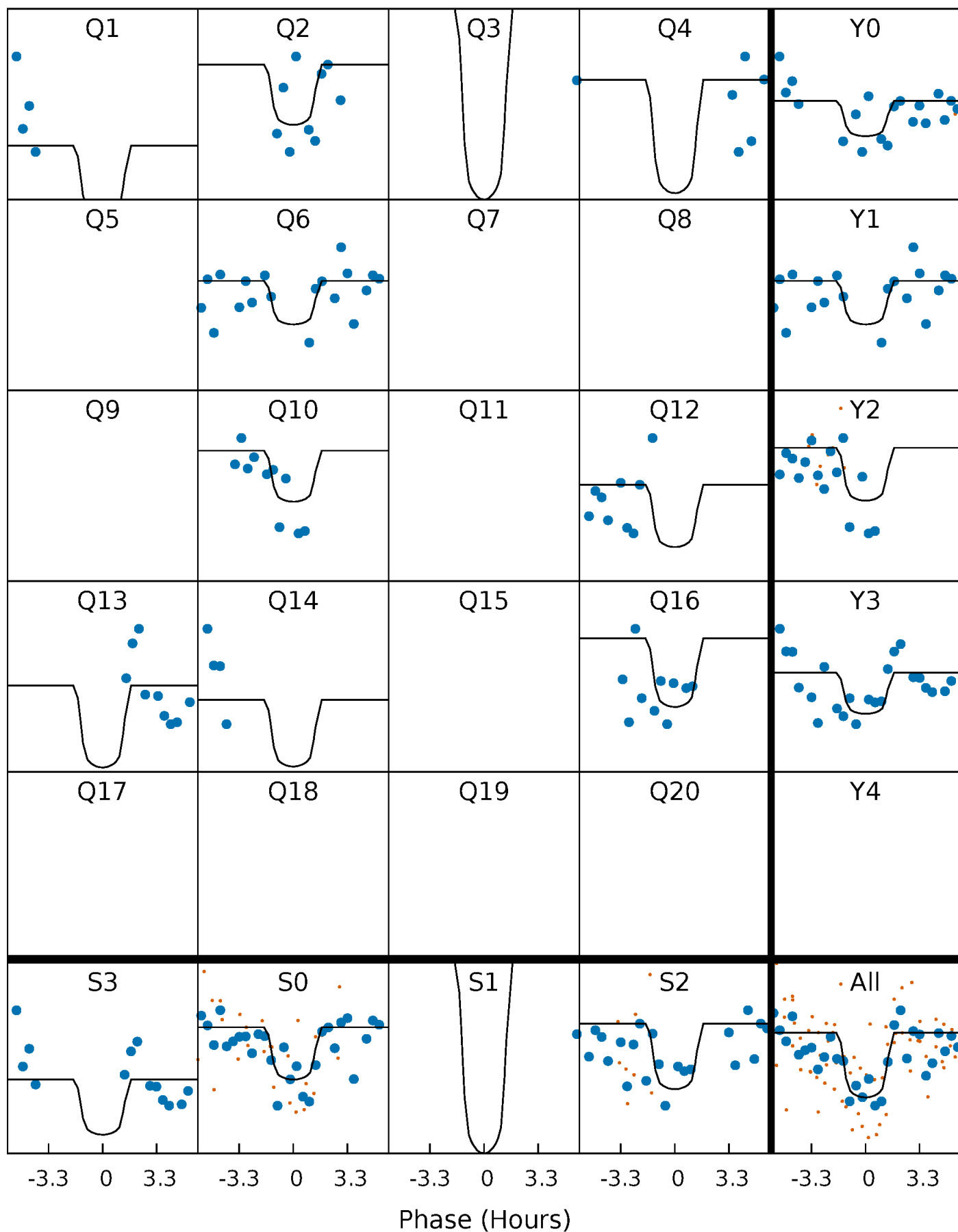
PDC Quarter-Phased Transit Curves

TCE 010552700-10 $P = 58.468746$ Days $T_0 = 146.900902$ (BKJD)



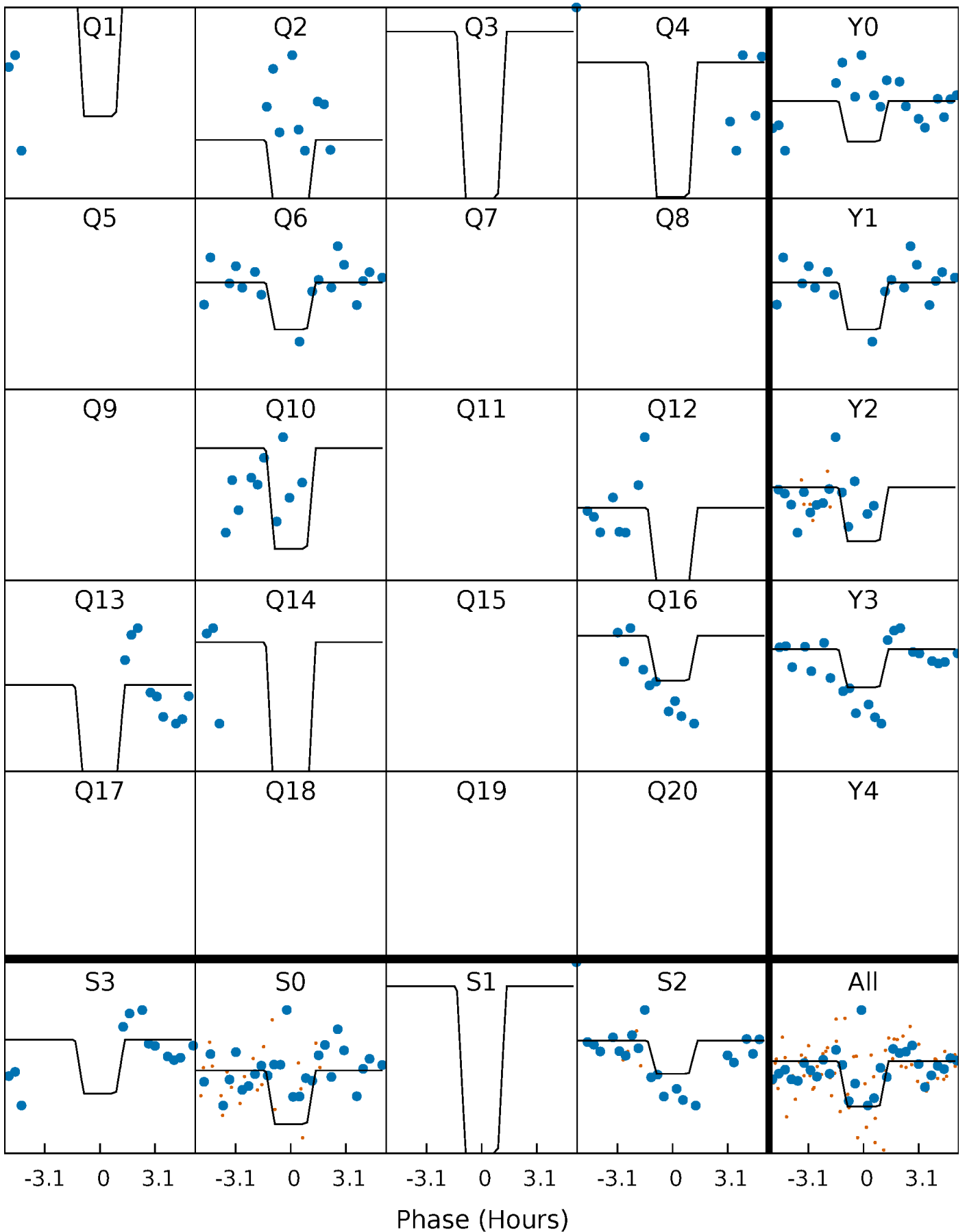
DV Quarter-Phased Transit Curves

TCE 010552700-10 P= 58.468746 Days $T_0=146.900902$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

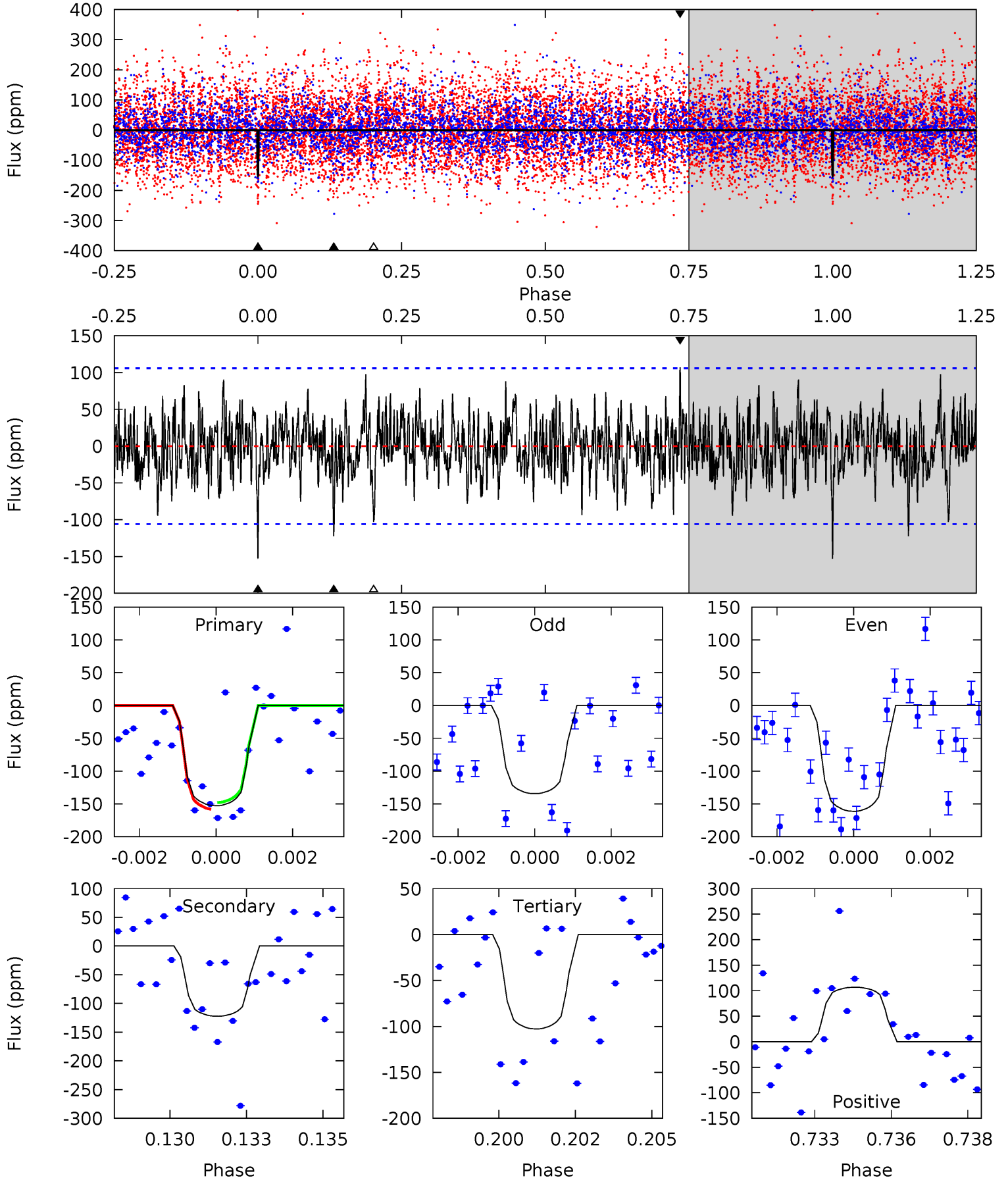
TCE 010552700-10 $P = 58.467936$ Days $T_0 = 146.915894$ (BKJD)



DV Model-Shift Uniqueness Test

010552700-10, P = 58.468746 Days, E = 88.432156 Days

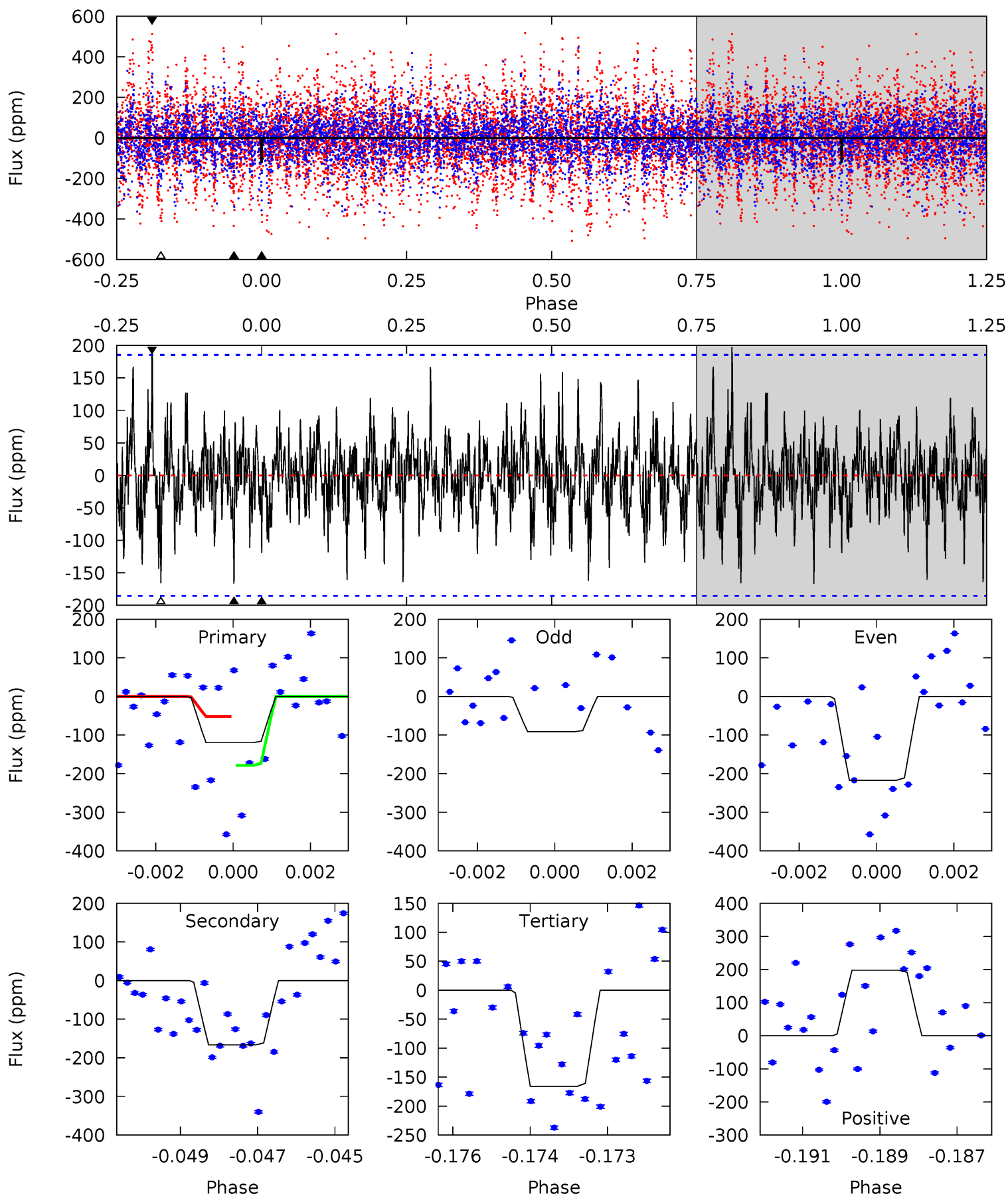
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.65	6.13	5.15	5.35	5.31	3.06	1.57	2.51	2.30	0.98	0.78	0.65	1.01	0.41	0.26



Alt Model-Shift Uniqueness Test

010552700-10, P = 58.467936 Days, E = 88.447958 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.45	4.80	4.78	5.69	5.34	3.12	1.44	-1.33	-2.25	0.02	-0.90	1.67	0.93	0.54	1.82



Stellar Parameters For KIC 010552700

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6875^{+164}_{-226}	$3.798^{+0.259}_{-0.111}$	$0.200^{+0.200}_{-0.300}$	$2.856^{+0.503}_{-0.935}$	$1.868^{+0.180}_{-0.361}$	$0.113^{+0.194}_{-0.039}$
	+2%/-3%	+7%/-3%	+100%/-150%	+18%/-33%	+10%/-19%	+172%/-35%
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 010552700-10 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-122 ± 20	$8.42^{+8.60}_{-5.84}$	1172^{+75}_{-88}	4430^{+3362}_{-912}	118^{+1207}_{-87}
Alt.	-166 ± 35	$8.50^{+8.45}_{-5.49}$	1170^{+73}_{-102}	4691^{+3249}_{-1052}	161^{+1167}_{-121}

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

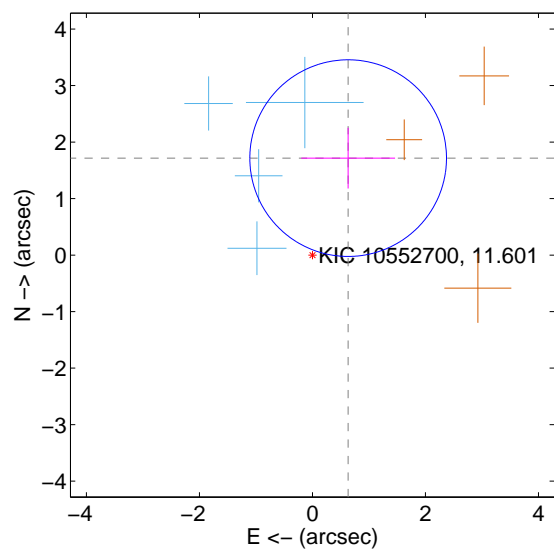
Supplemental centroid analysis for 010552700-10. **Kepler magnitude: 11.60**. Transit SNR 7.35

There are 4 quarters with good PRF difference image offsets

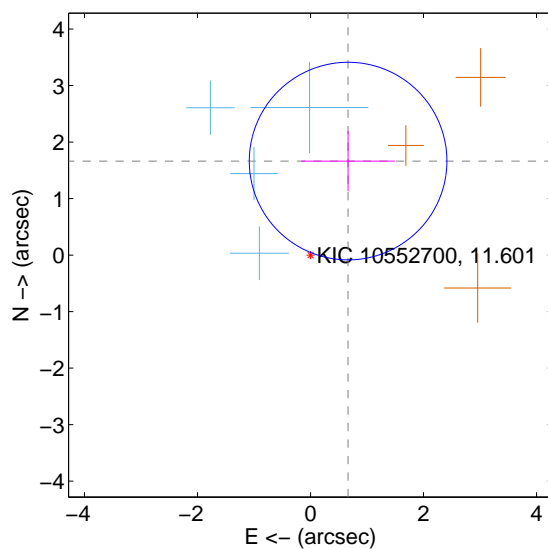
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.829 ± 0.580	3.15	-0.632 ± 0.830	1.716 ± 0.537
PRF-fit source offset from KIC position	1.792 ± 0.583	3.07	-0.665 ± 0.827	1.664 ± 0.533
photometric centroid source offset	0.50 ± 0.70	0.71	0.47 ± 0.70	0.17 ± 0.72

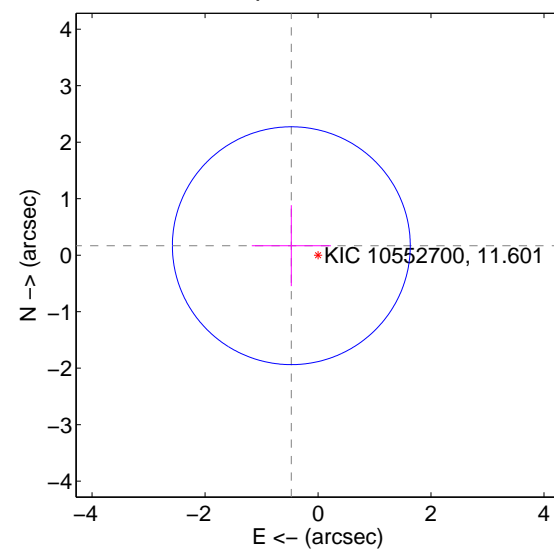
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

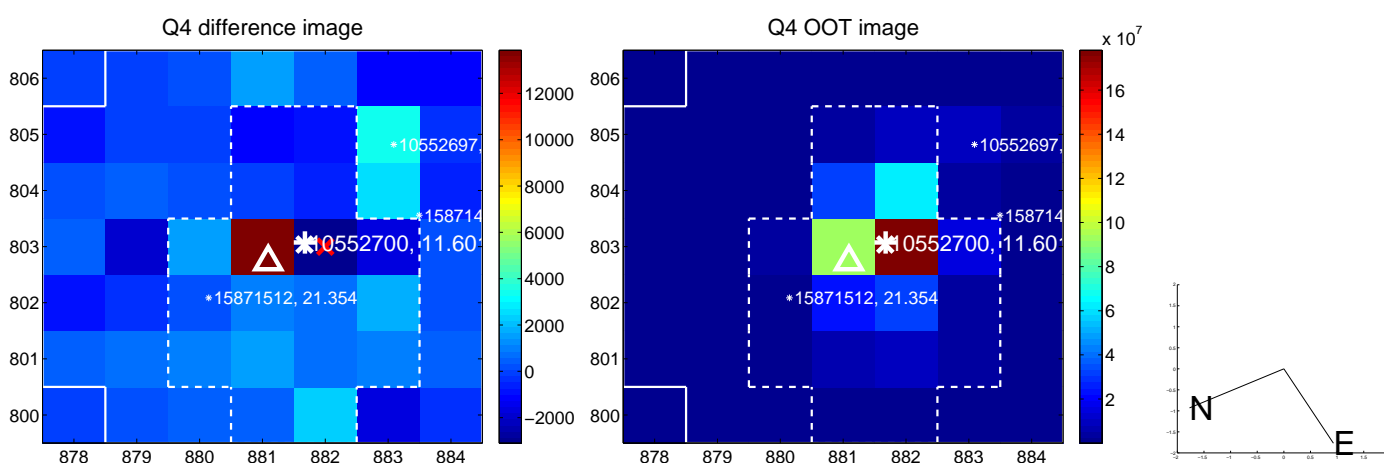
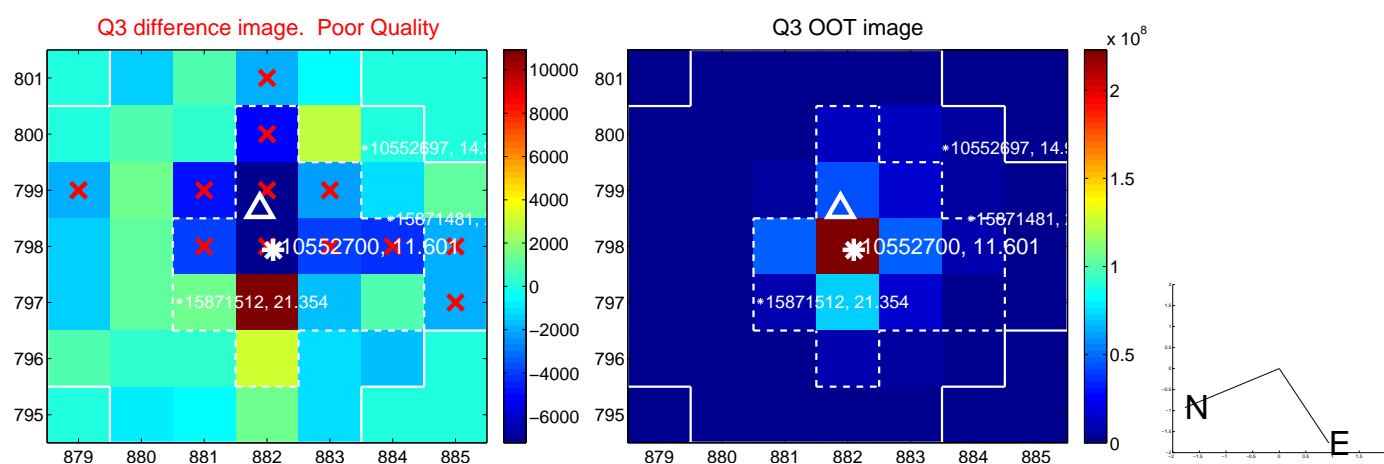
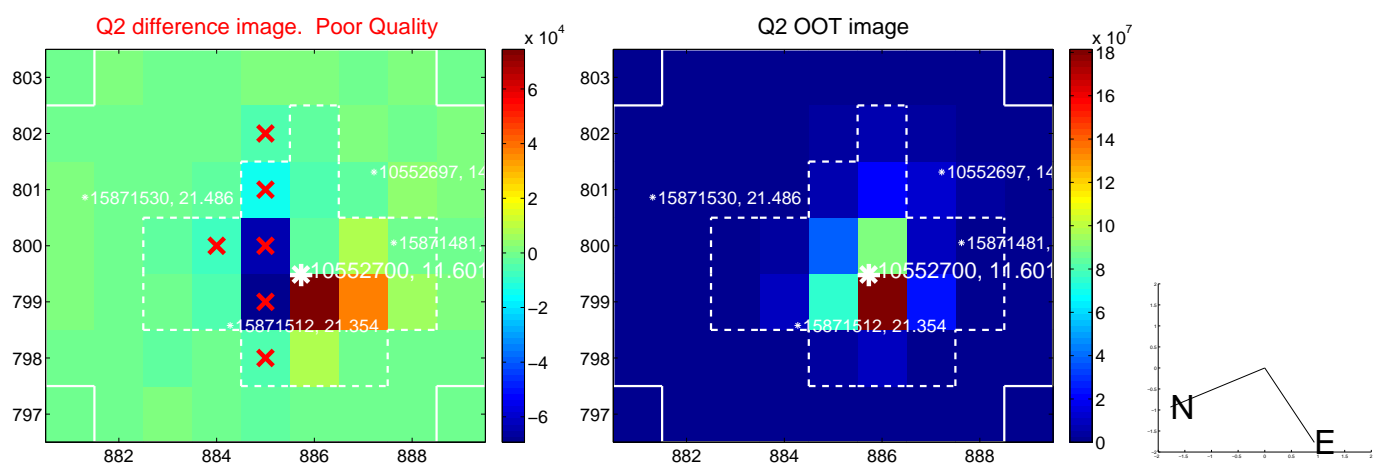
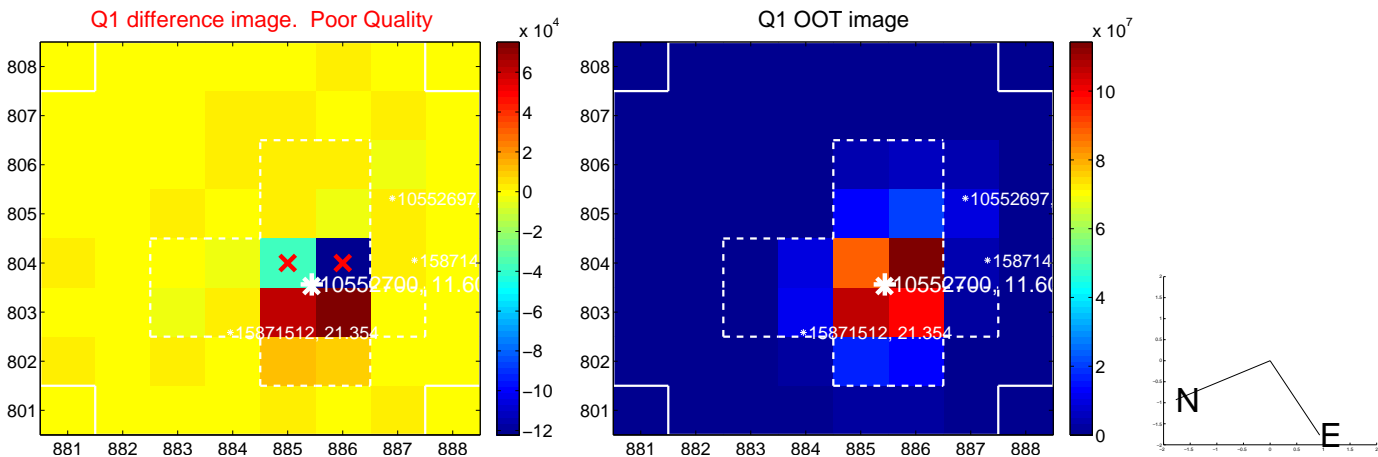


offset from photometric centroids

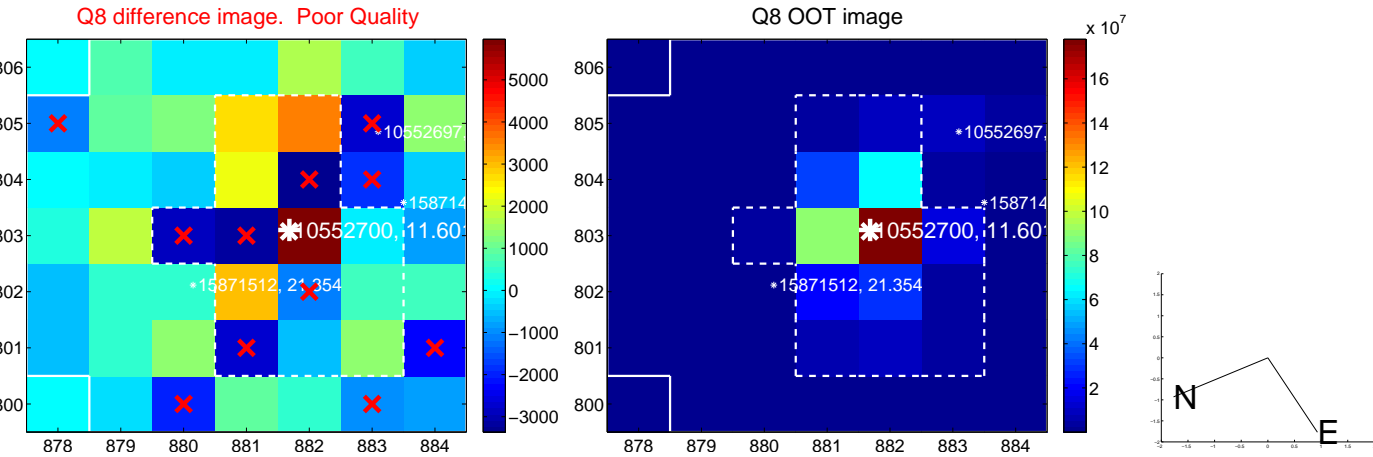
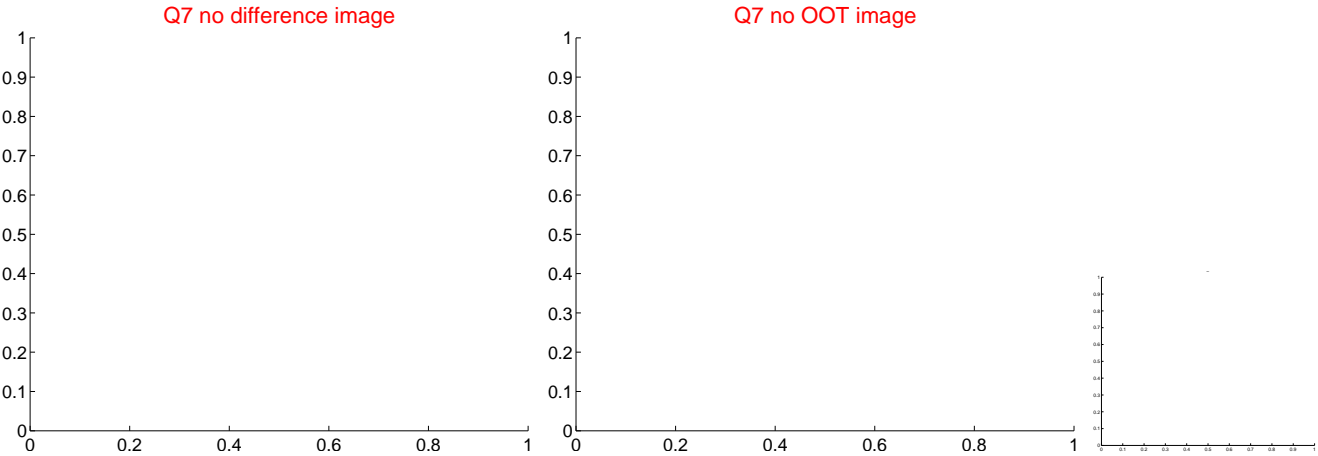
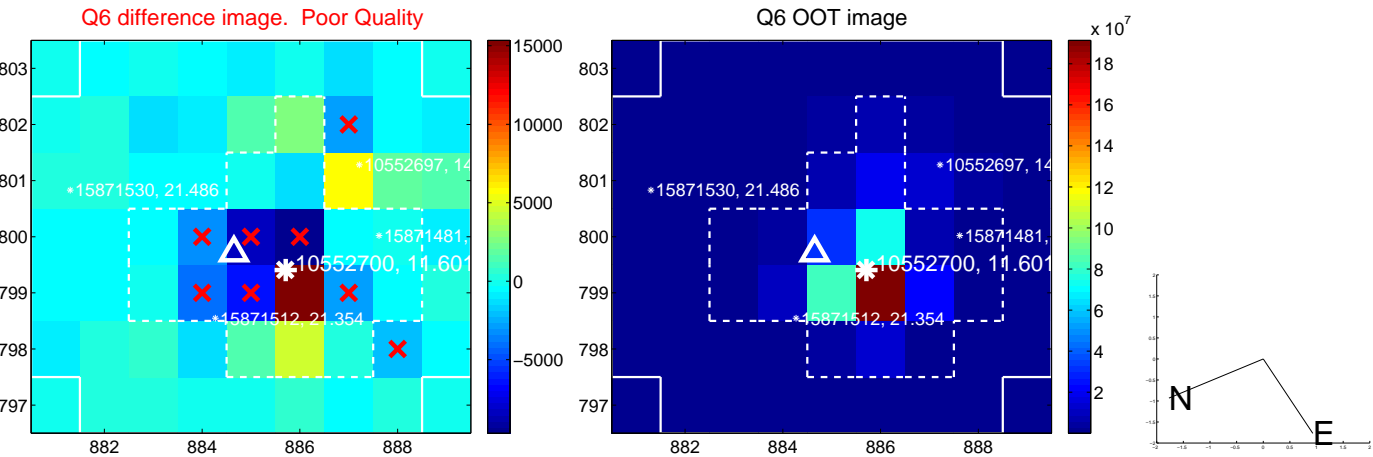
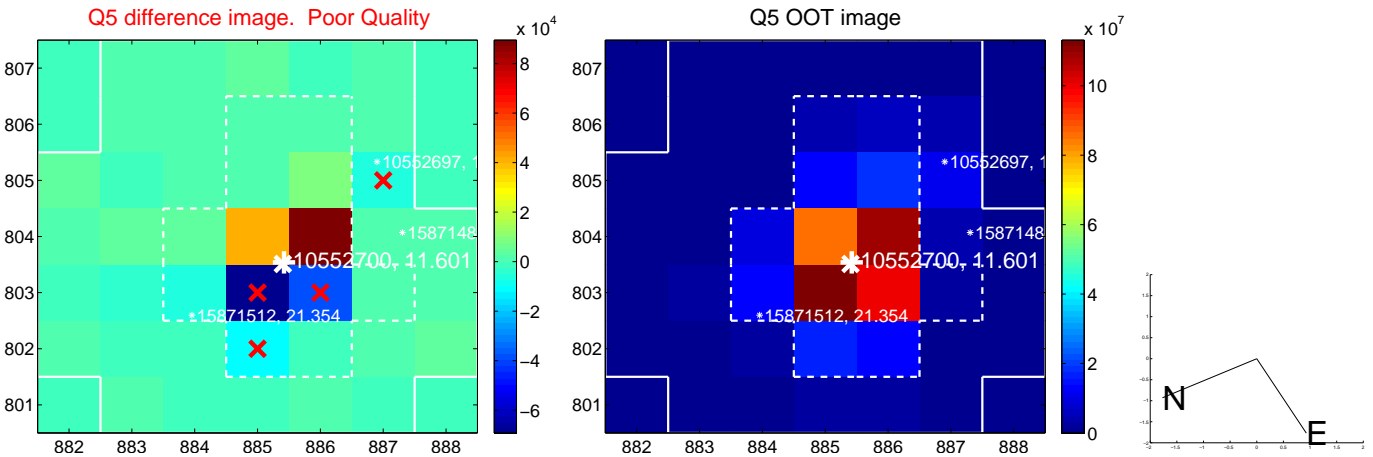


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

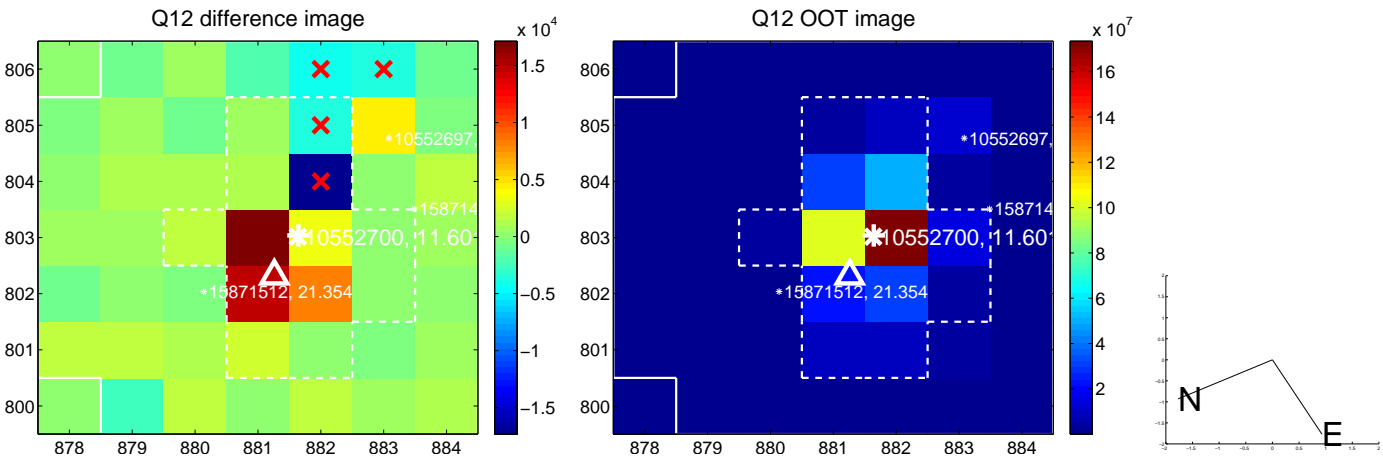
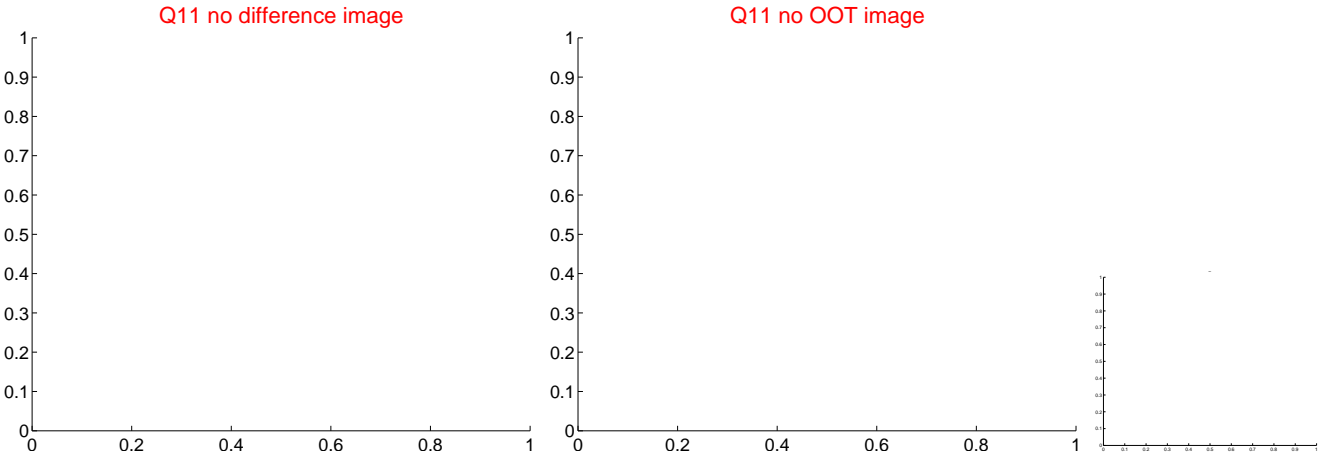
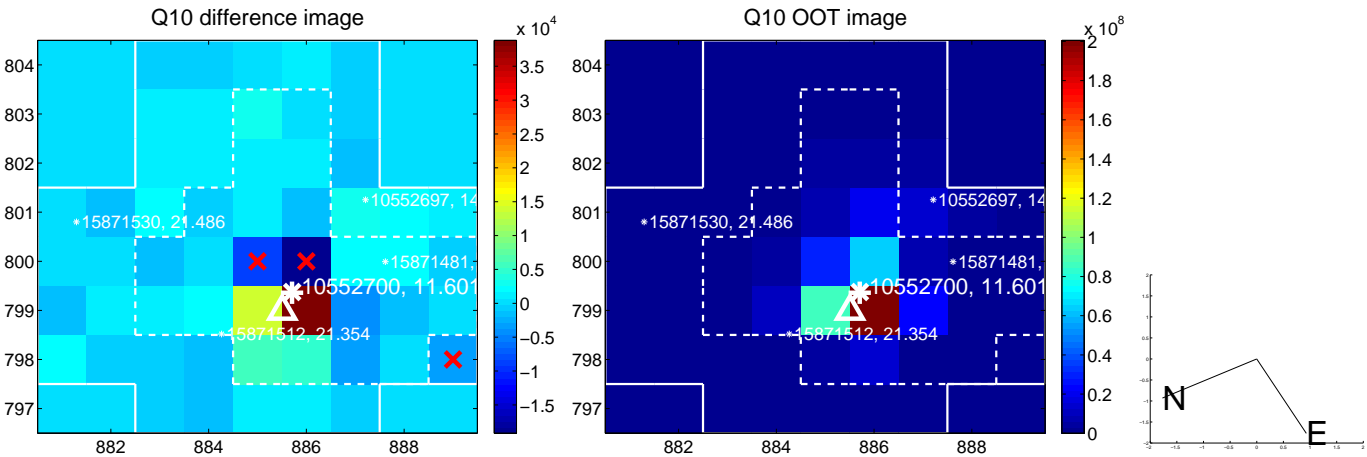
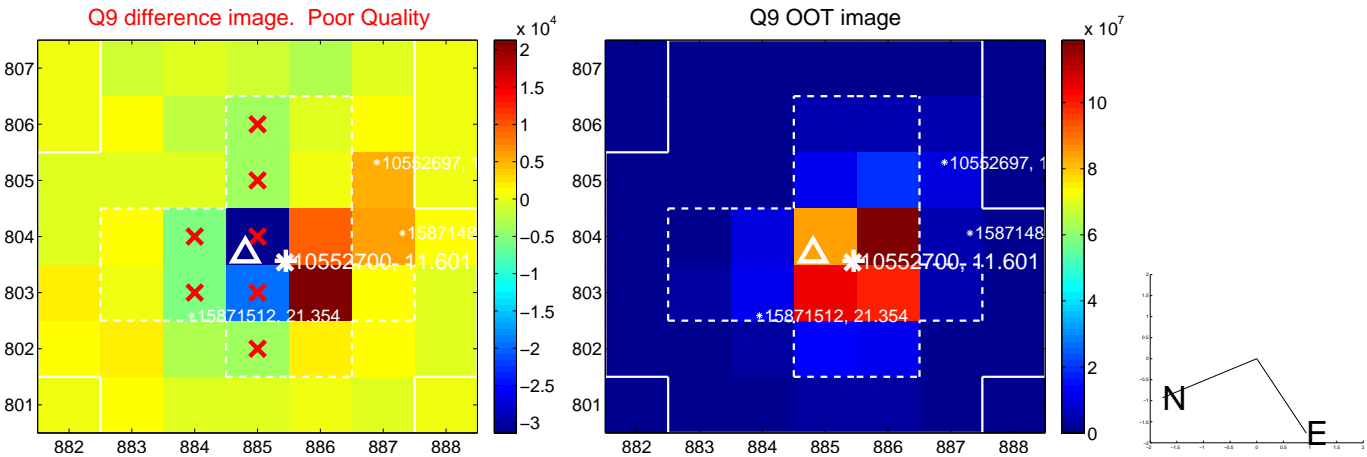
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



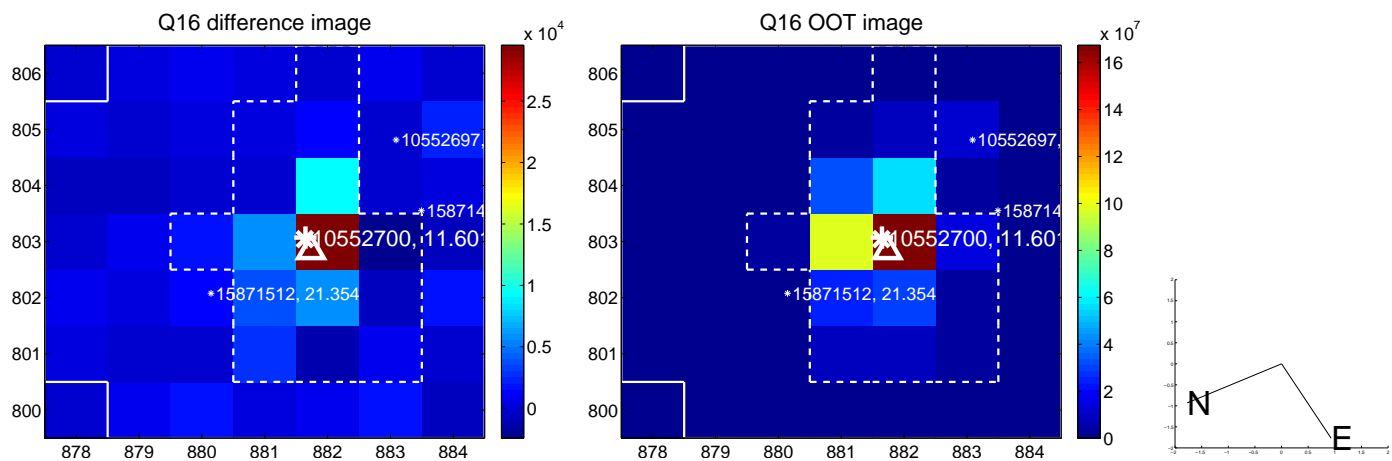
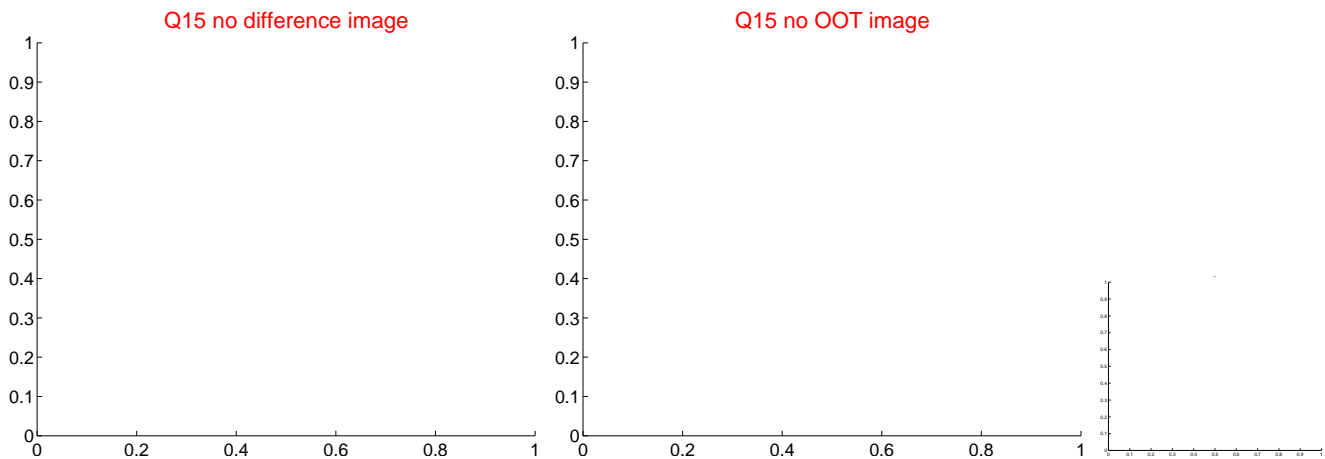
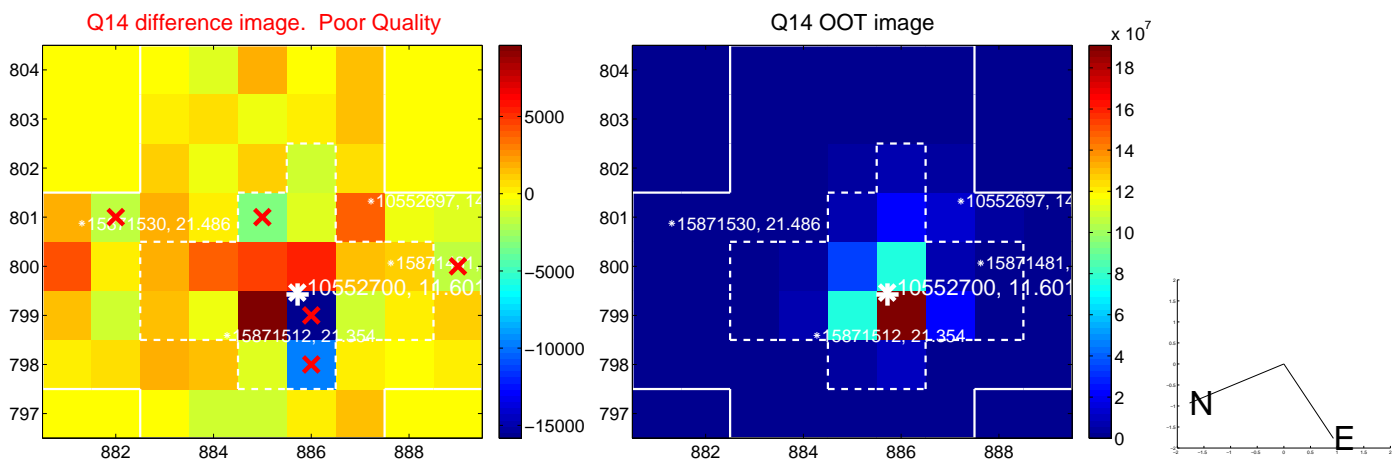
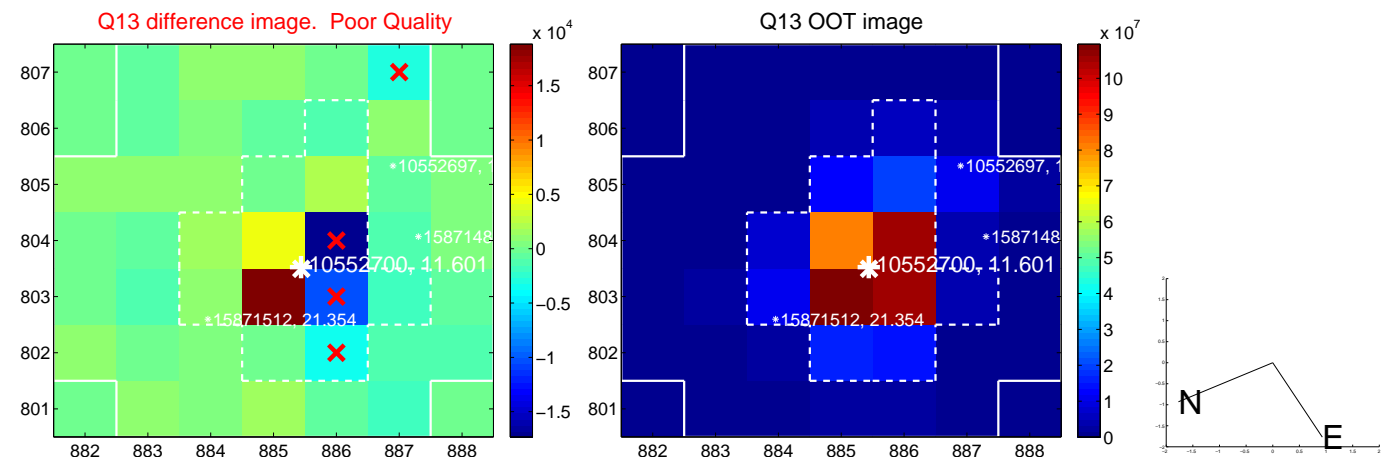
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



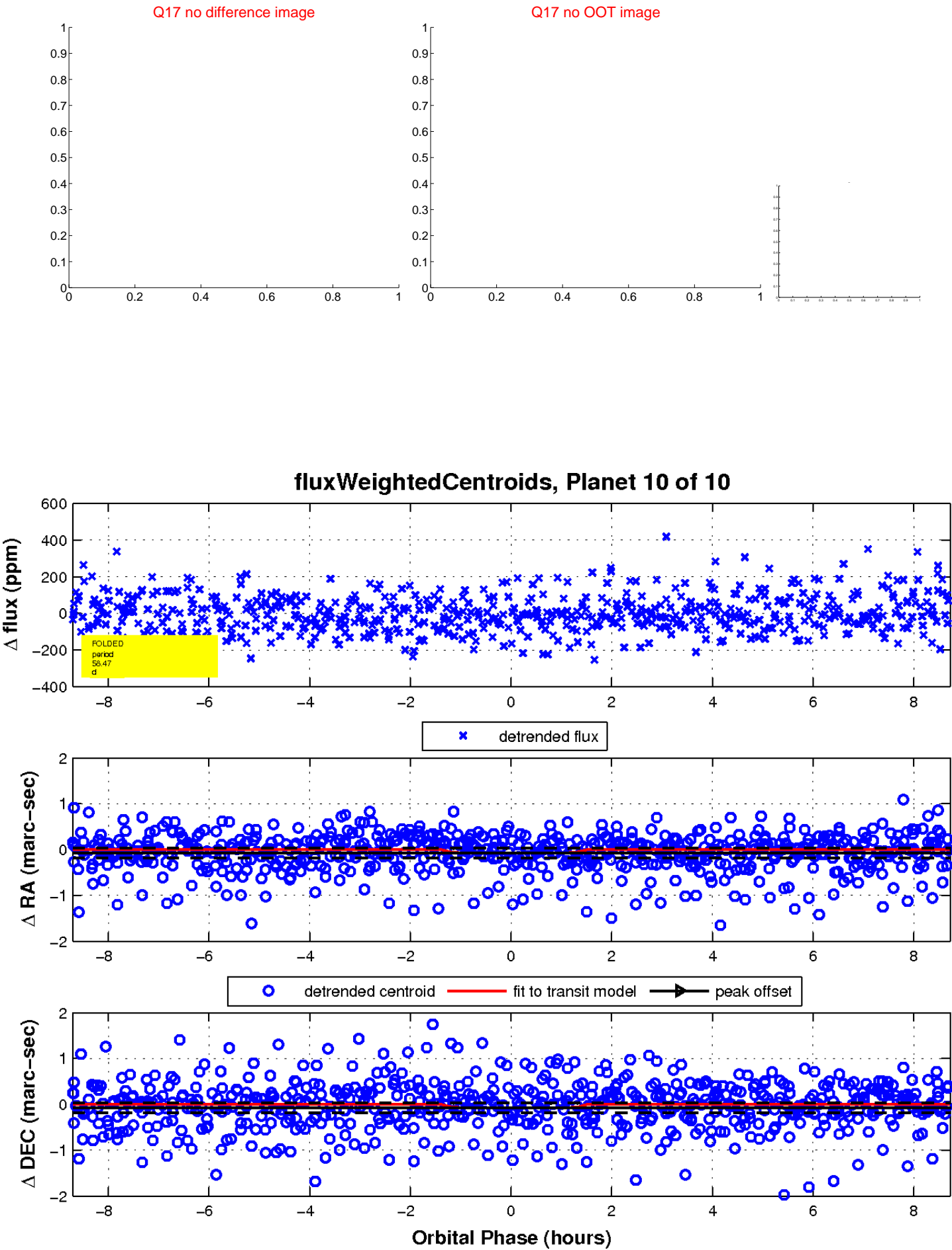
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

