

KIC 004279066

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})
004279066-01	OBS	No	12.651782	140.329678	168.2	35.400	8.6	12.6	1.93	6523	4.99	411.39
004279066-02	OBS	No	518.635632	362.365520	601.3	20.564	11.1	8.9	1.93	6523	6.12	2.91
004279066-03	OBS	No	12.652400	134.243317	83.9	21.588	7.5	9.0	1.93	6523	2.04	411.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004279066-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV
004279066-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—INCONSISTENT_TRANS—CENT_FEW_DIFFS
004279066-03	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD

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

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

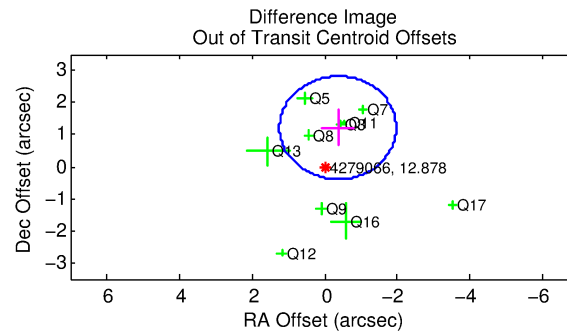
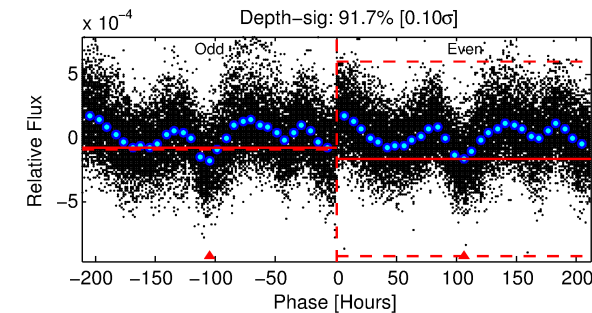
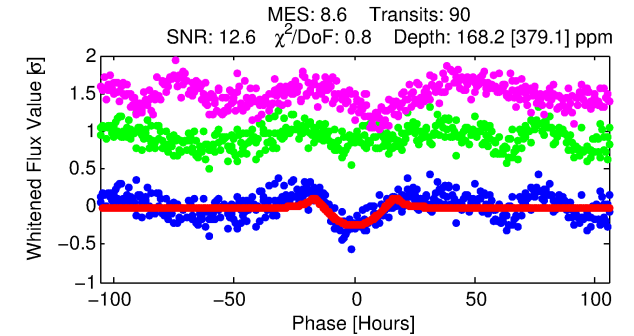
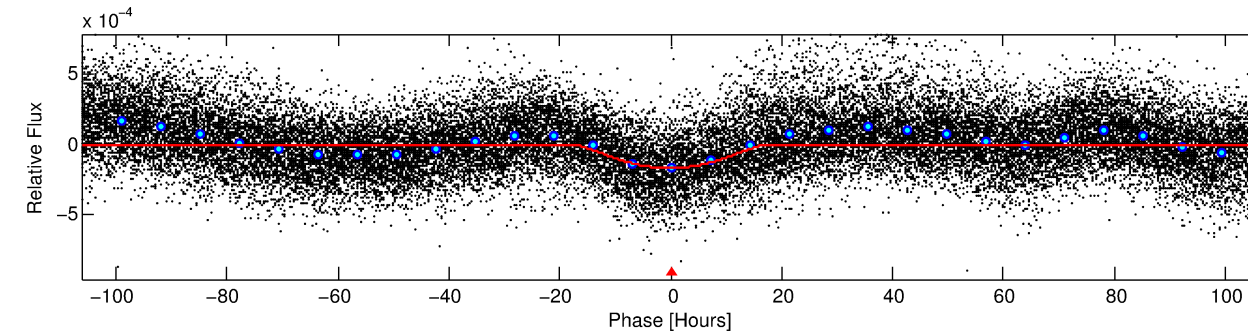
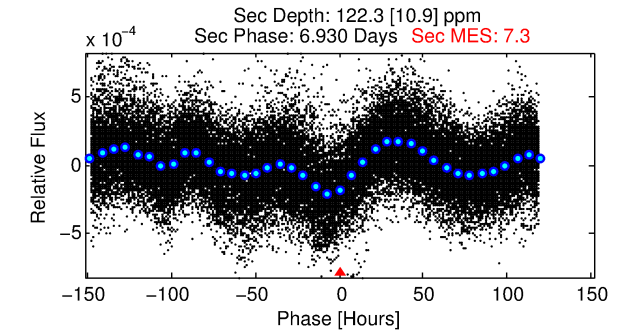
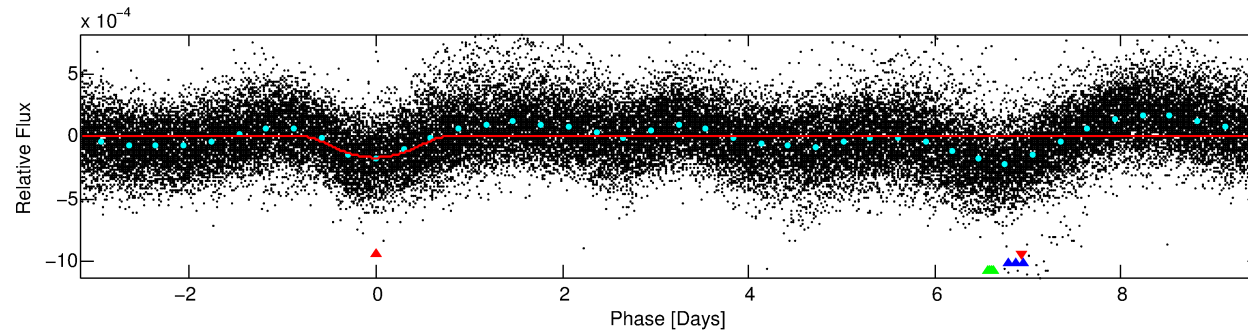
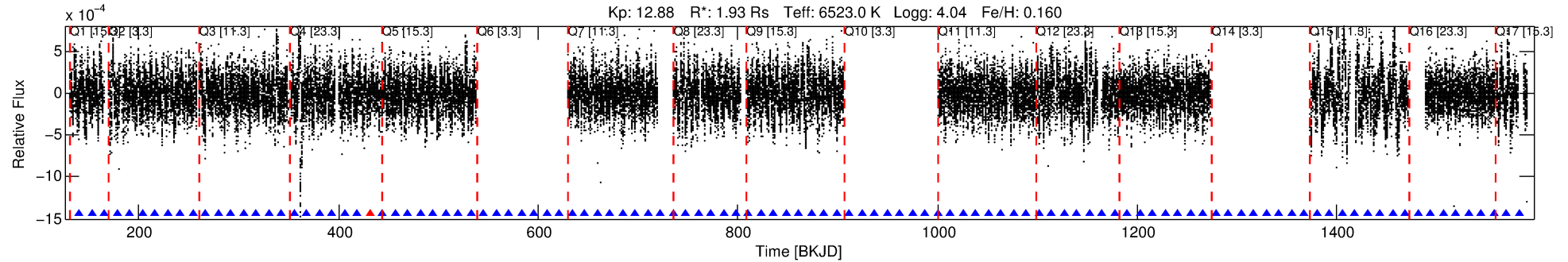
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004279066-01

No Significant Match Found

DV One-Page Summary

KIC: 4279066 Candidate: 1 of 3 Period: 12.652 d



DV Fit Results:

Period = 12.65178 [0.00061] d
Epoch = 140.3297 [0.0380] BKJD
Rp/R* = 0.0237 [0.0222]
a/R* = 1.17 [0.05]
b = 1.00 [0.07]
Seff = 411.39 [120.77]
Teff = 1148 [84] K
Rp = 4.99 [4.78] Re
a = 0.1209 [0.0223] AU
Ag = 39.58 [75.18] [0.51σ]
Teffp = 4454 [2091] K [1.58σ]

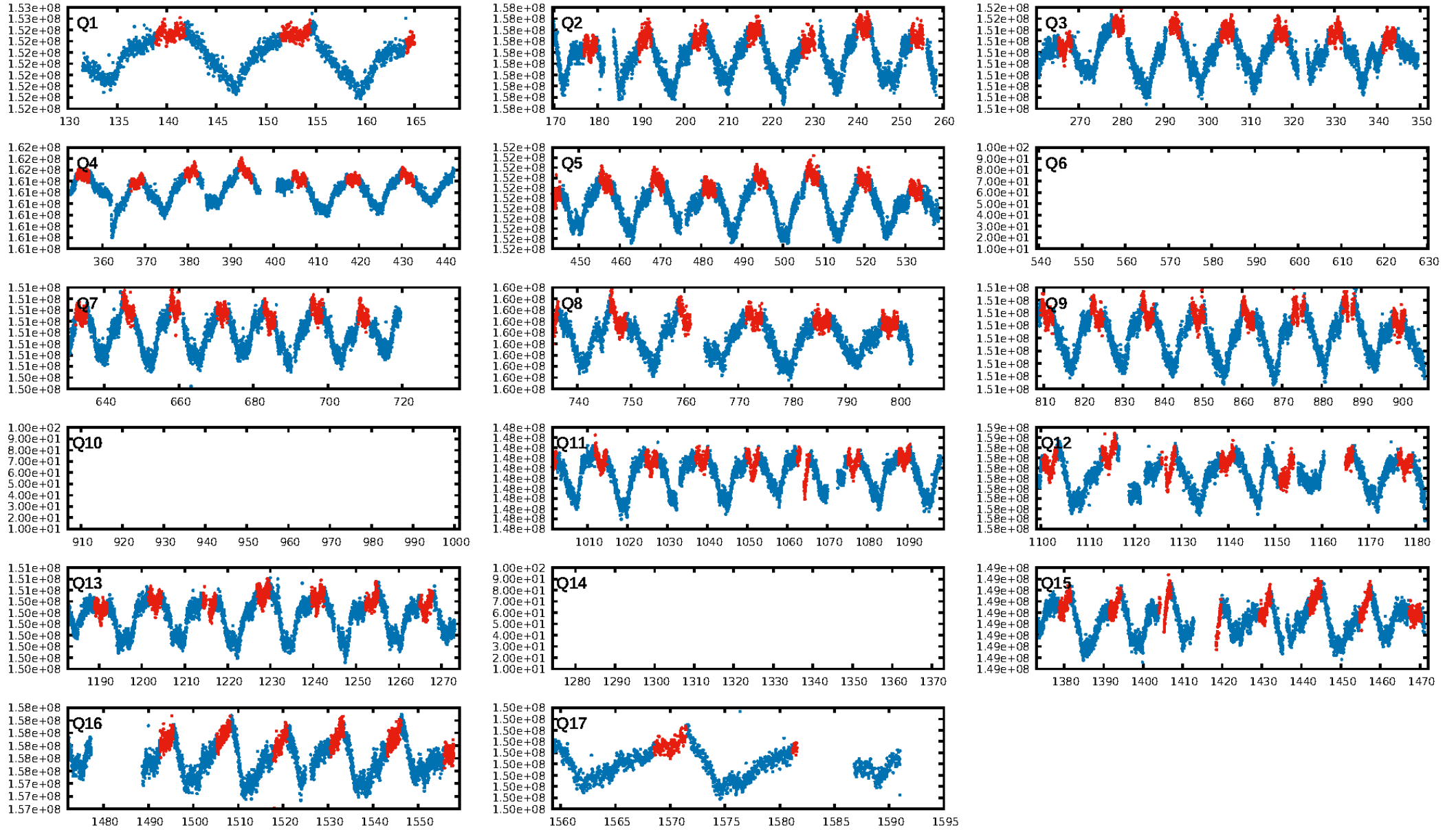
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: 99.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.44e-18
RollingBand-fgt: 0.99 [85/86]
GhostDiagnostic-chr: 3.676
Centroid-sig: 8.6%
Centroid-so: 0.393 arcsec [1.12σ]
OotOffset-rm: 1.267 arcsec [2.37σ]
OotOffset-st: 0/3/3/4 [10]
KicOffset-rm: 1.407 arcsec [2.75σ]
KicOffset-st: 0/3/3/4 [10]
DiffImageQuality-fgm: 0.50 [5/10]
DiffImageOverlap-fno: 1.00 [14/14]

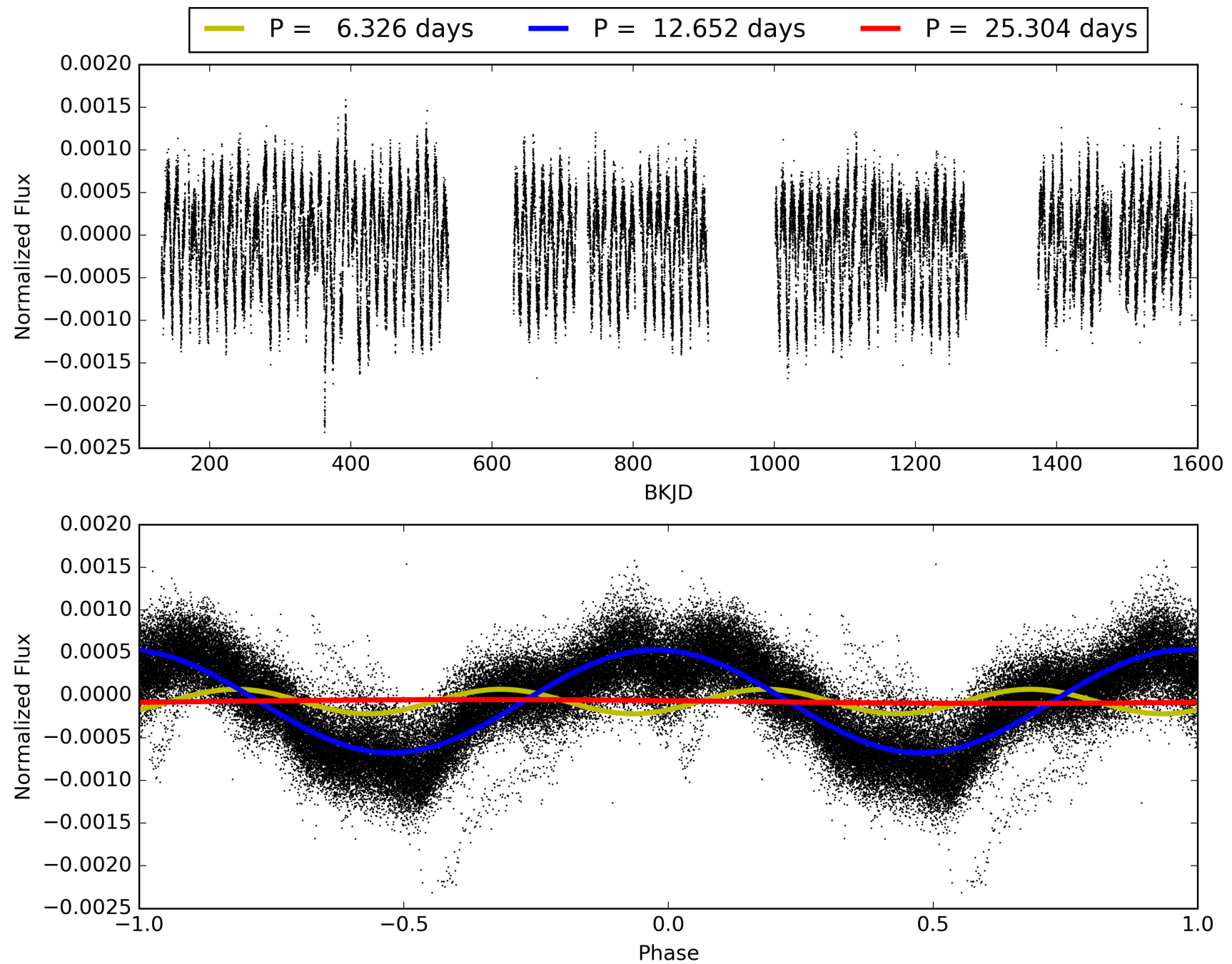
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:25:36 Z

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

TCE 004279066-01, PDC Light Curves

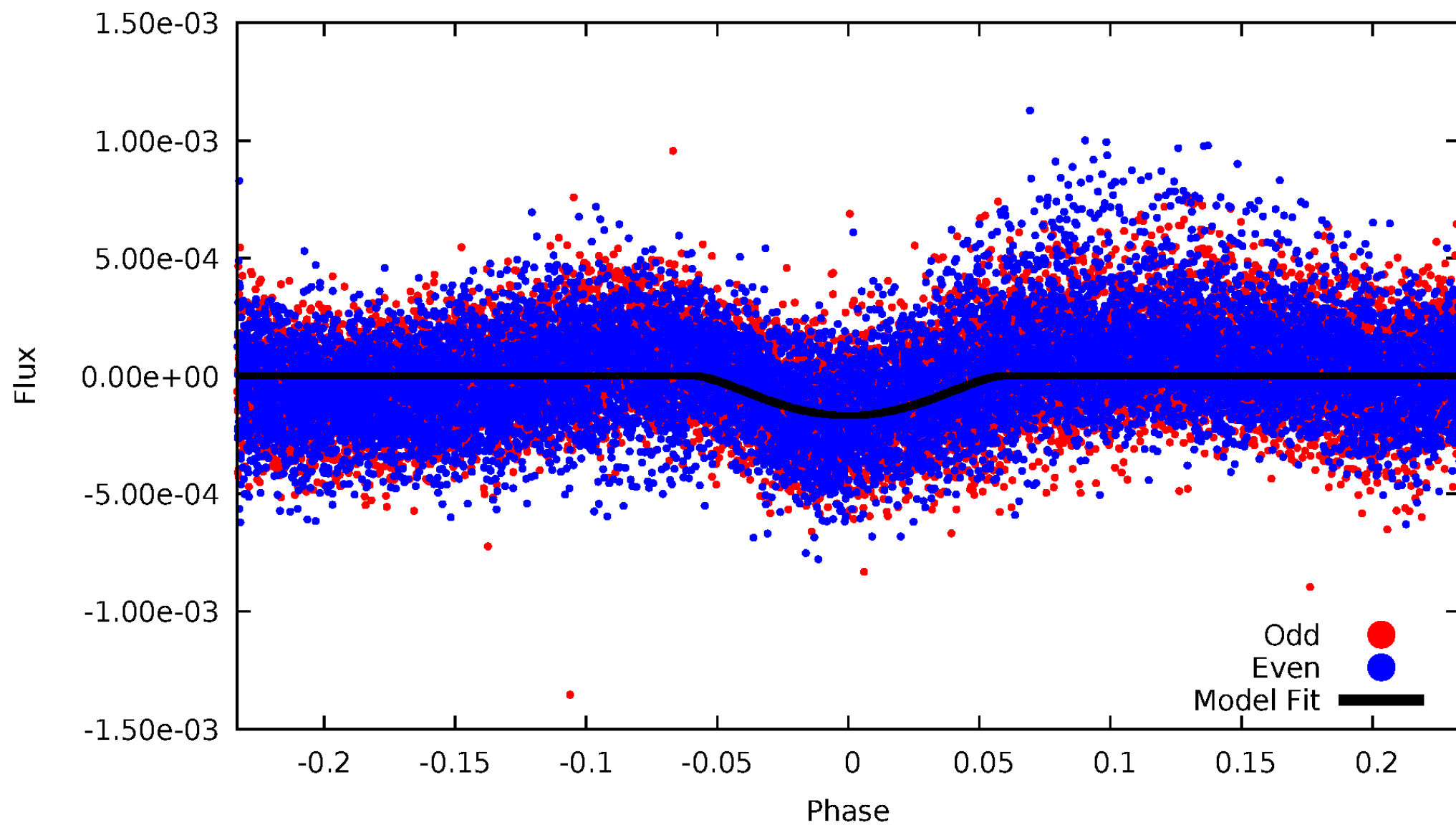


TCE 004279066-01



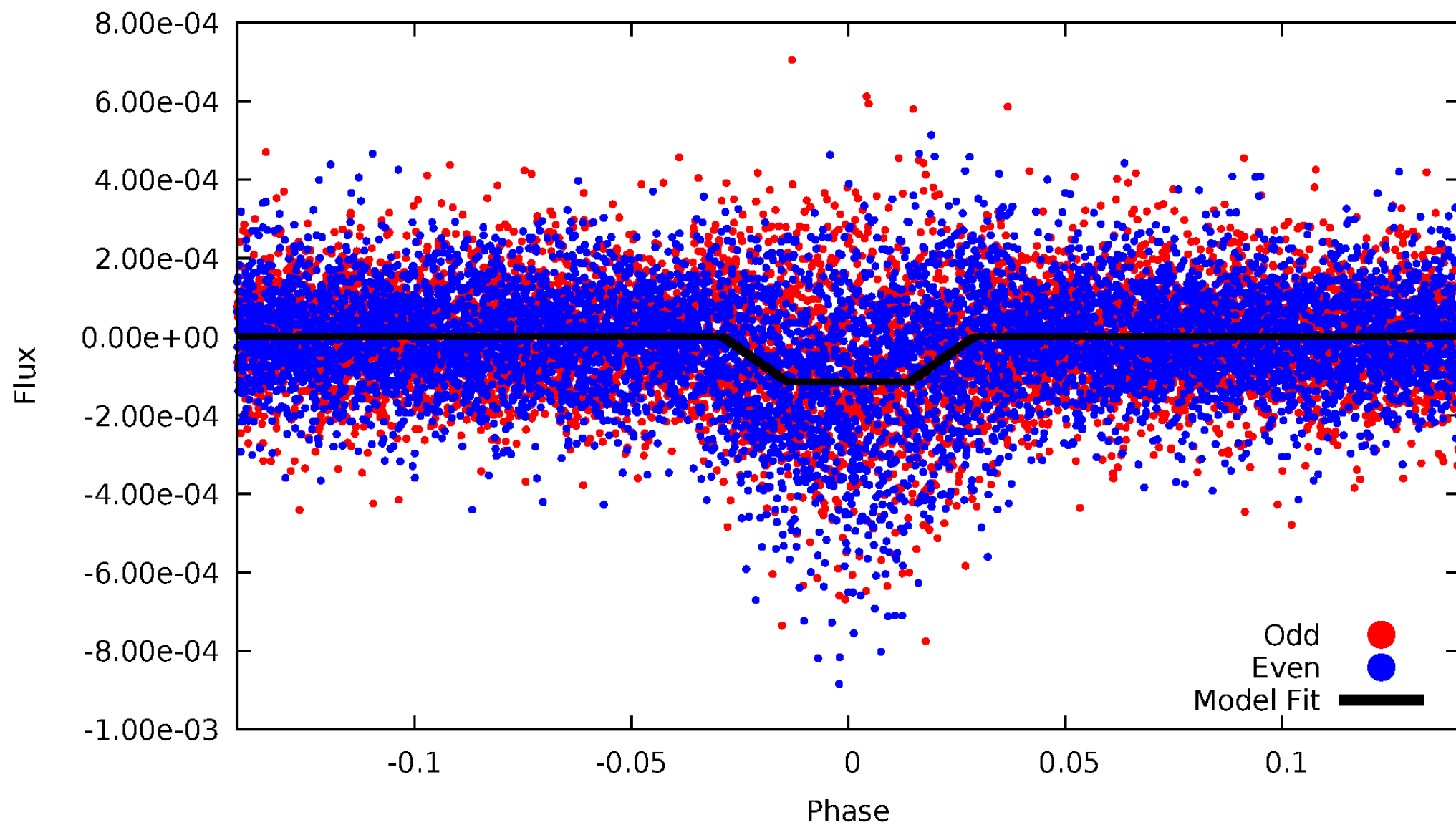
DV Odd/Even

TCE 004279066-01

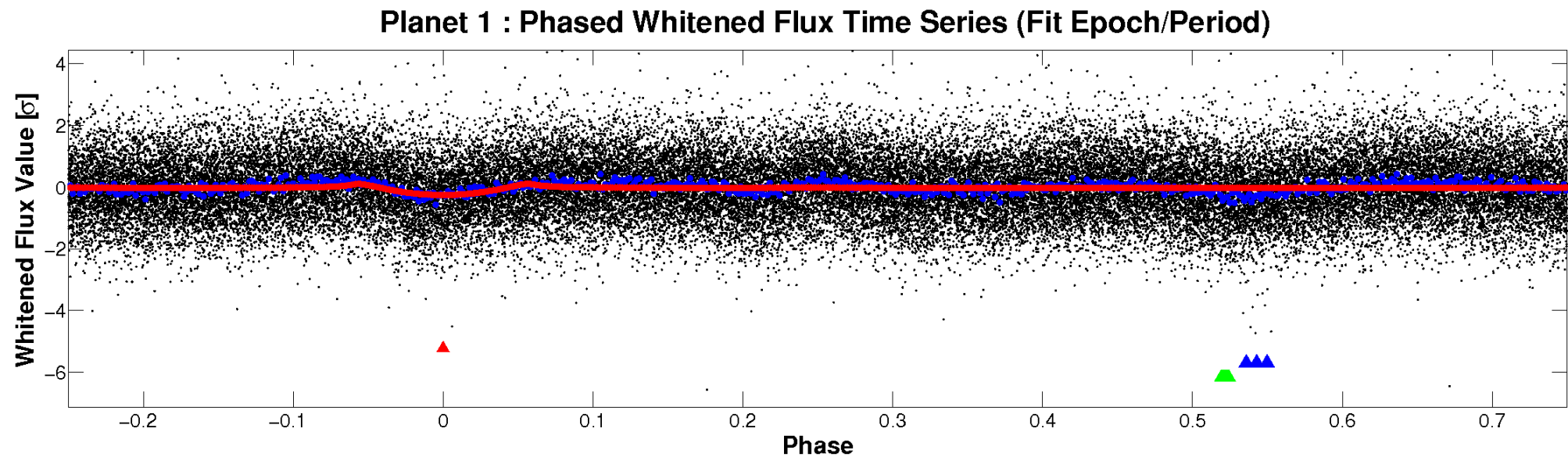
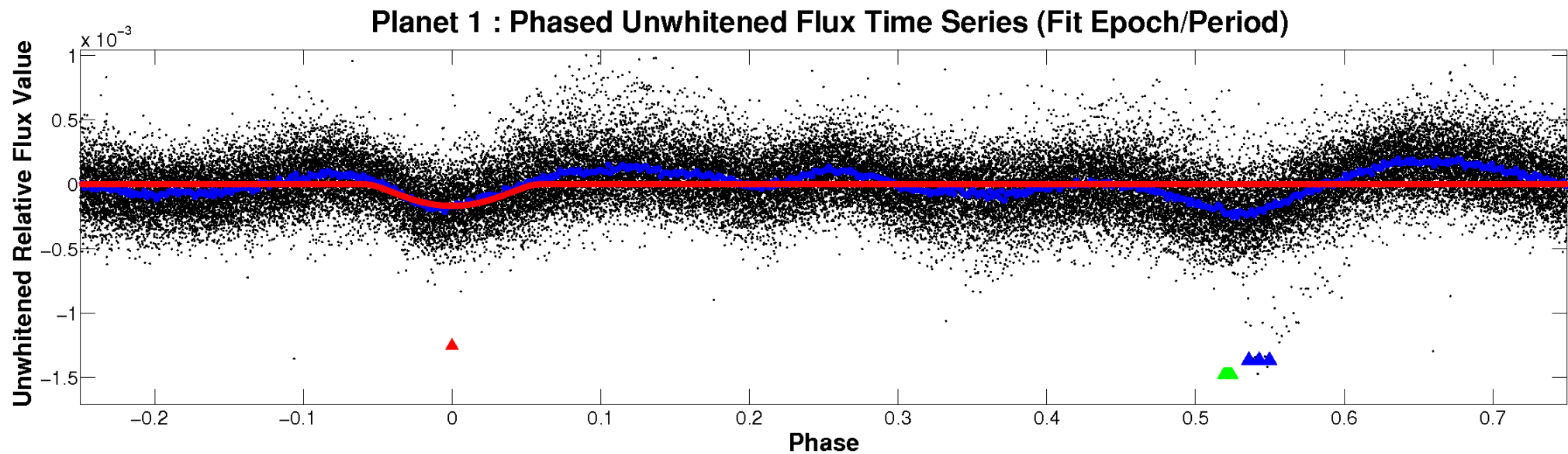


ALT Odd/Even

TCE 004279066-01

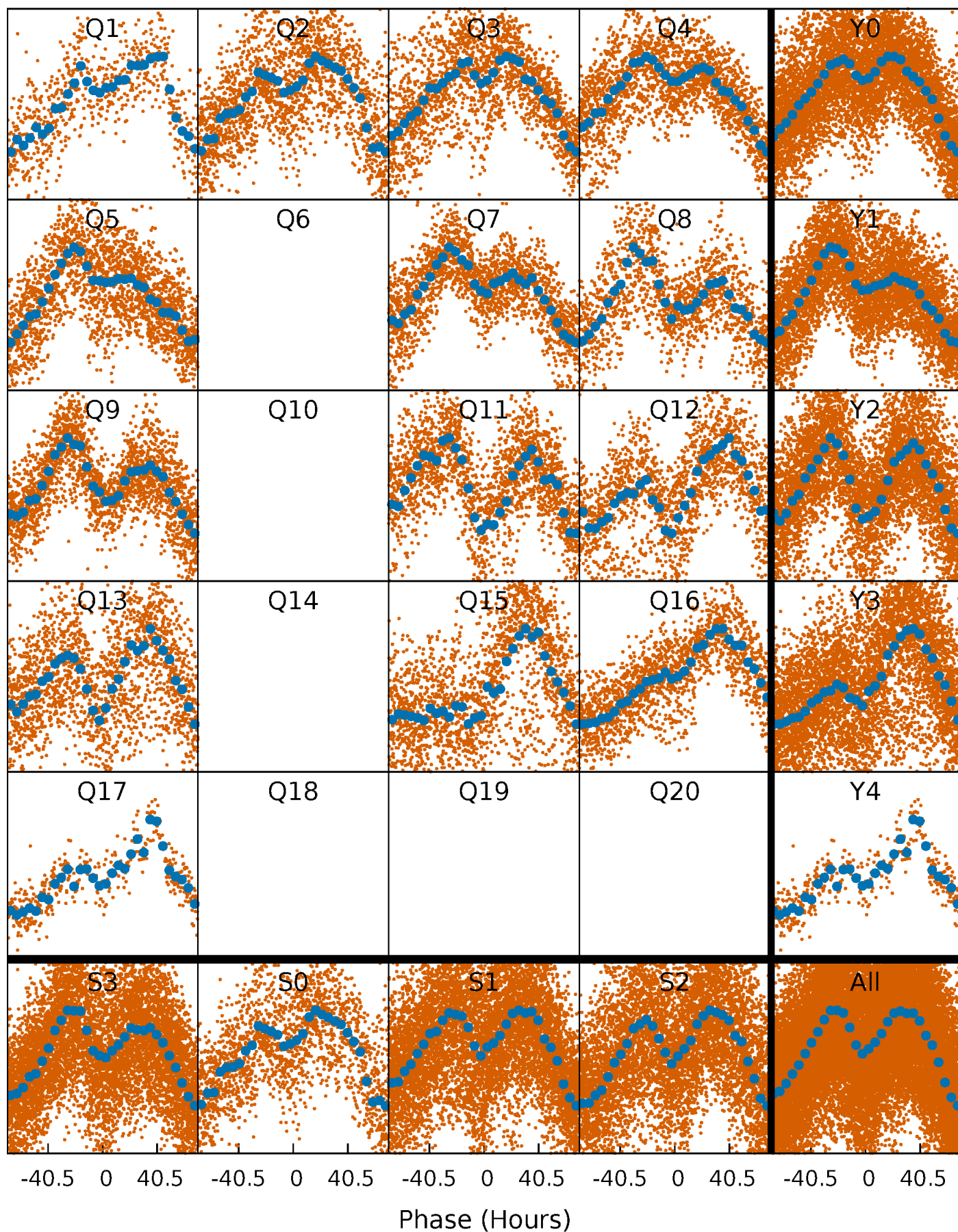


Non-Whitened Vs. Whitened Light Curve



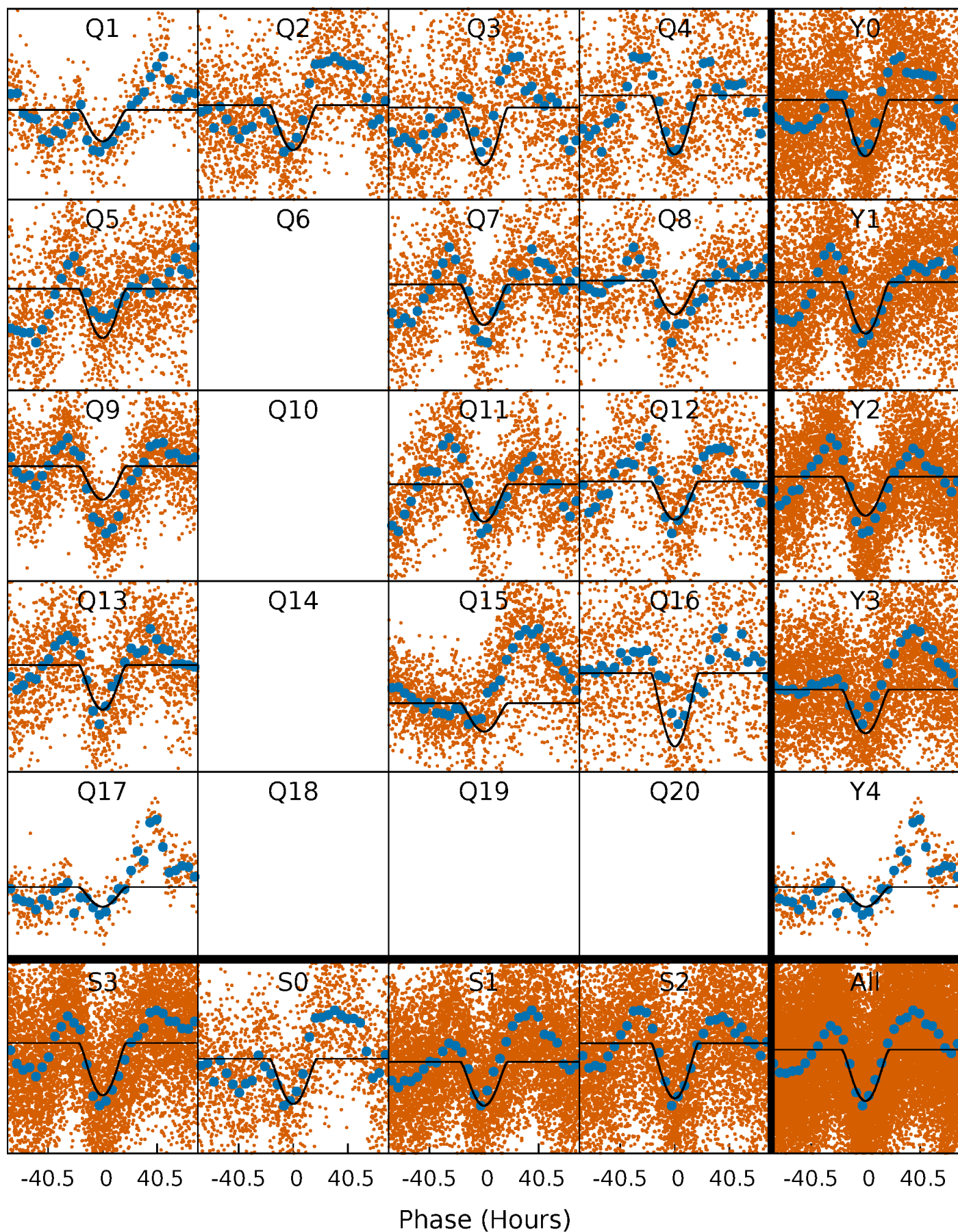
PDC Quarter-Phased Transit Curves

TCE 004279066-01 P= 12.651782 Days $T_0=140.329678$ (BKJD)



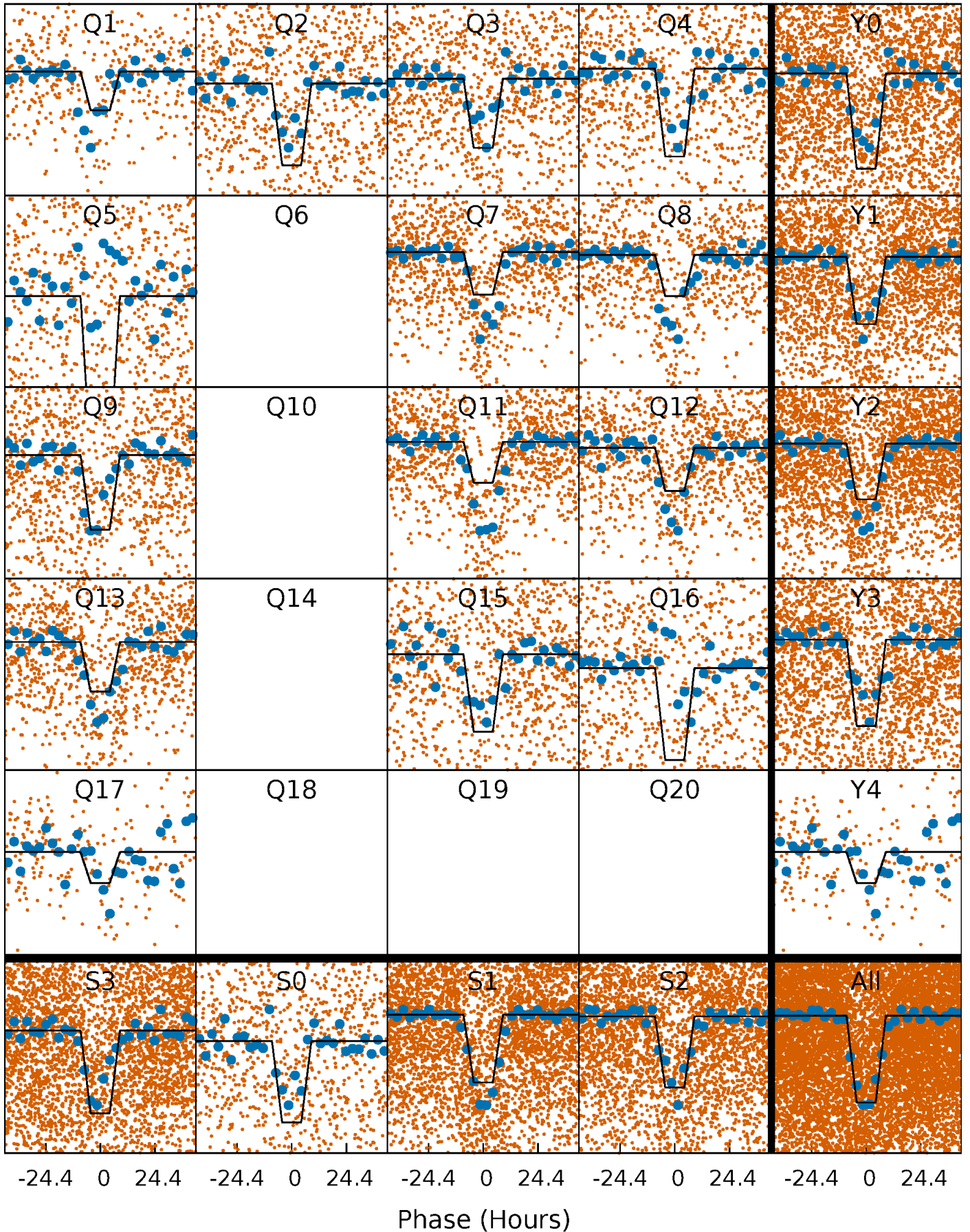
DV Quarter-Phased Transit Curves

TCE 004279066-01 P= 12.651782 Days $T_0=140.329678$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

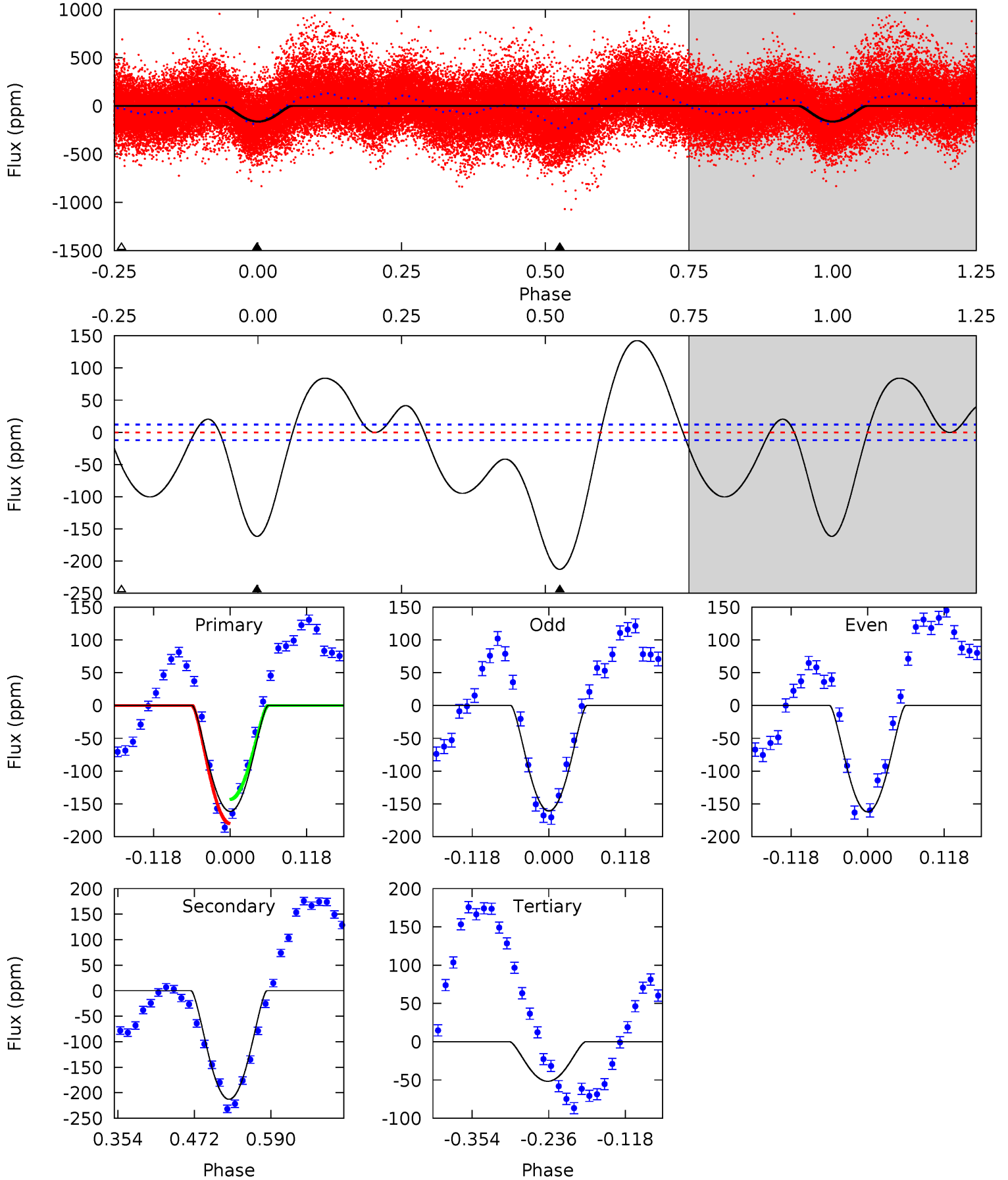
TCE 004279066-01 P= 12.651264 Days $T_0=140.201156$ (BKJD)



DV Model-Shift Uniqueness Test

004279066-01, P = 12.651782 Days, E = 127.677896 Days

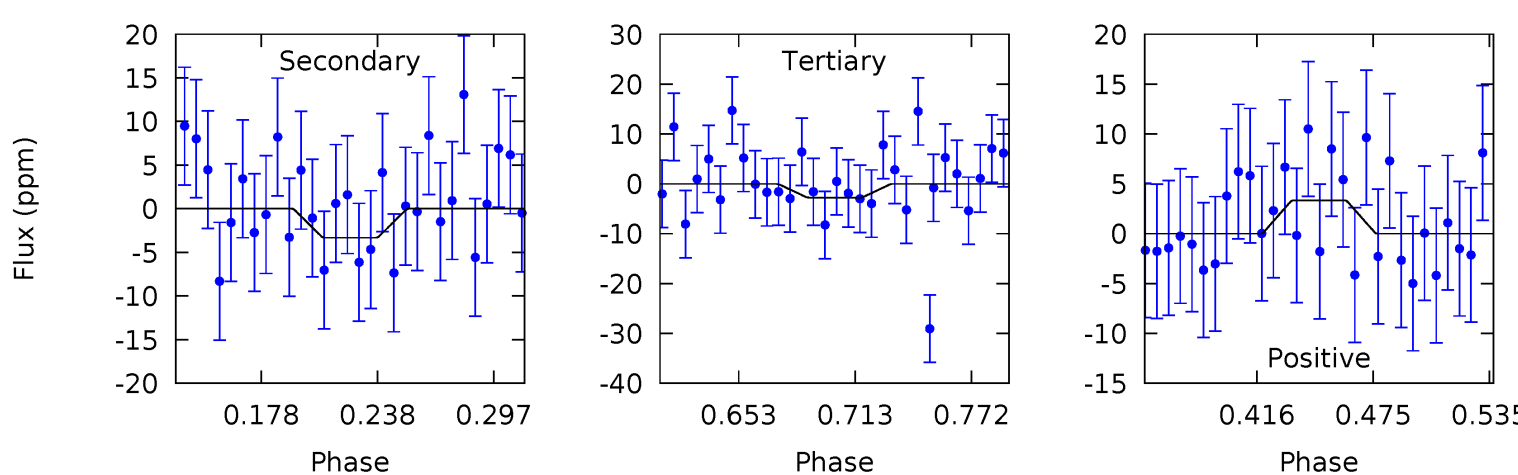
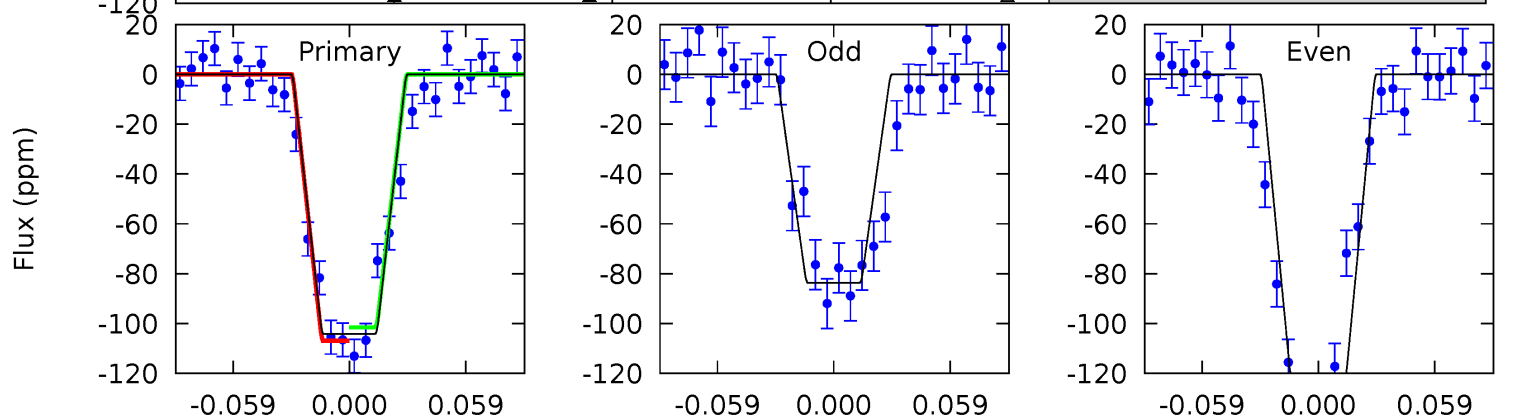
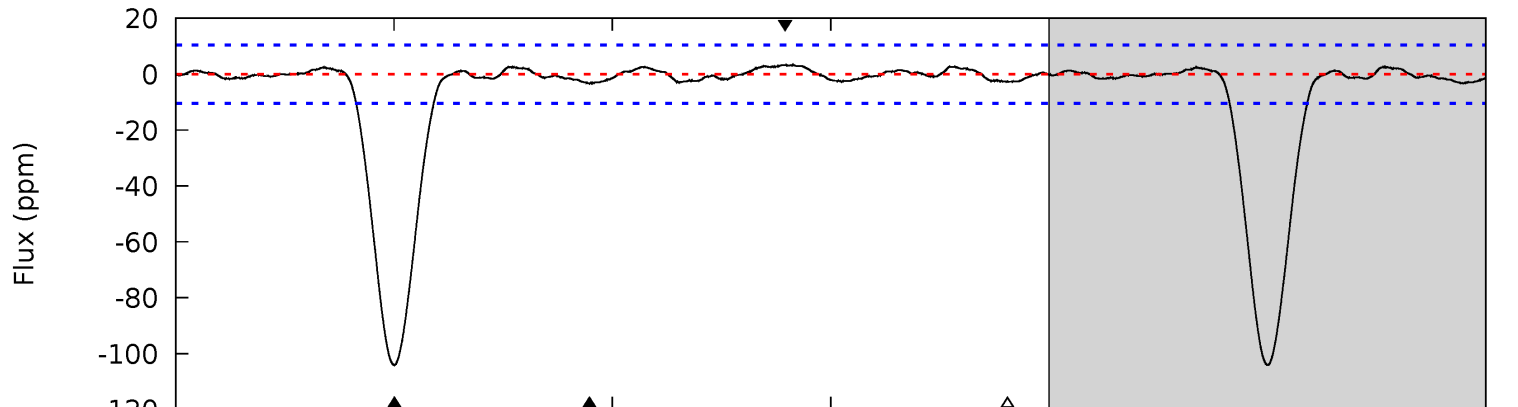
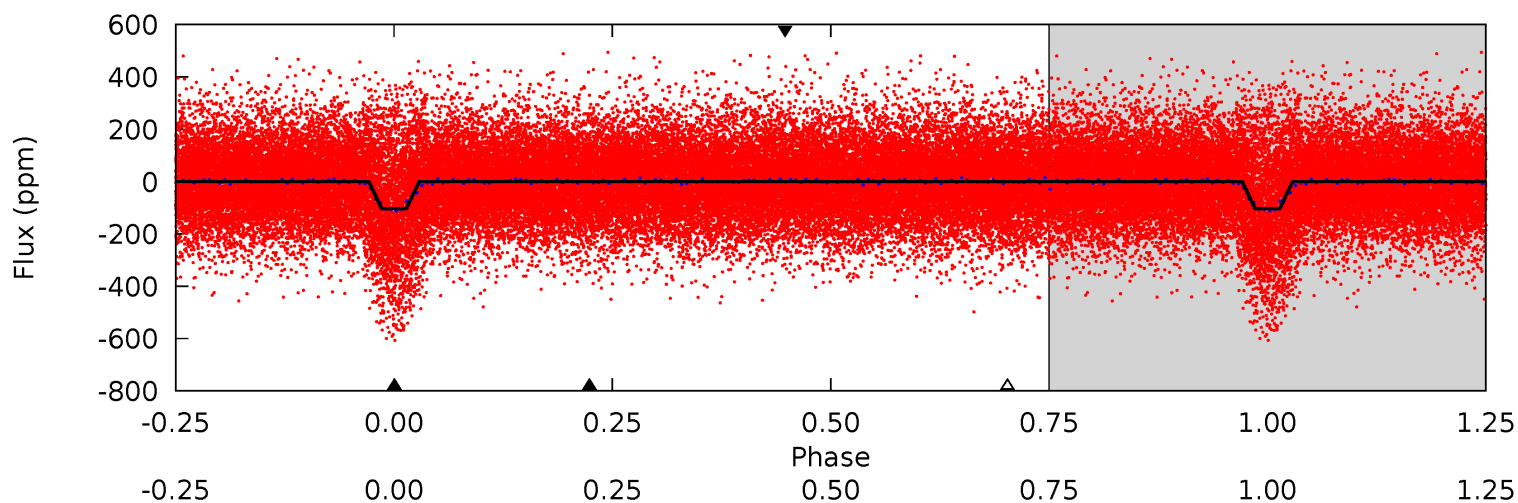
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
60.7	79.9	19.4	0	4.53	1.56	27.4	41.2	60.7	60.5	79.9	0.24	1.15	0.40	7.02



Alt Model-Shift Uniqueness Test

004279066-01, P = 12.651264 Days, E = 127.549892 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.7	1.49	1.23	1.49	4.67	1.89	0.72	45.4	45.2	0.26	-0.00	8.71	1.07	0.03	0



Stellar Parameters For KIC 004279066

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6523^{+78}_{-78}	$4.037^{+0.168}_{-0.112}$	$0.160^{+0.150}_{-0.150}$	$1.926^{+0.343}_{-0.381}$	$1.471^{+0.128}_{-0.142}$	$0.290^{+0.261}_{-0.102}$
	+1%/-1%	+4%/-3%	+94%/-94%	+18%/-20%	+9%/-10%	+90%/-35%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 004279066-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-213 ± 3	$5.90^{+4.39}_{-3.65}$	1598^{+80}_{-86}	4765^{+3058}_{-879}	49^{+295}_{-32}
Alt.	-3 ± 2	$4.03^{+4.18}_{-2.70}$	1601^{+74}_{-91}	2573^{+1150}_{-4549}	$1.302^{+11.139}_{-1.085}$

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

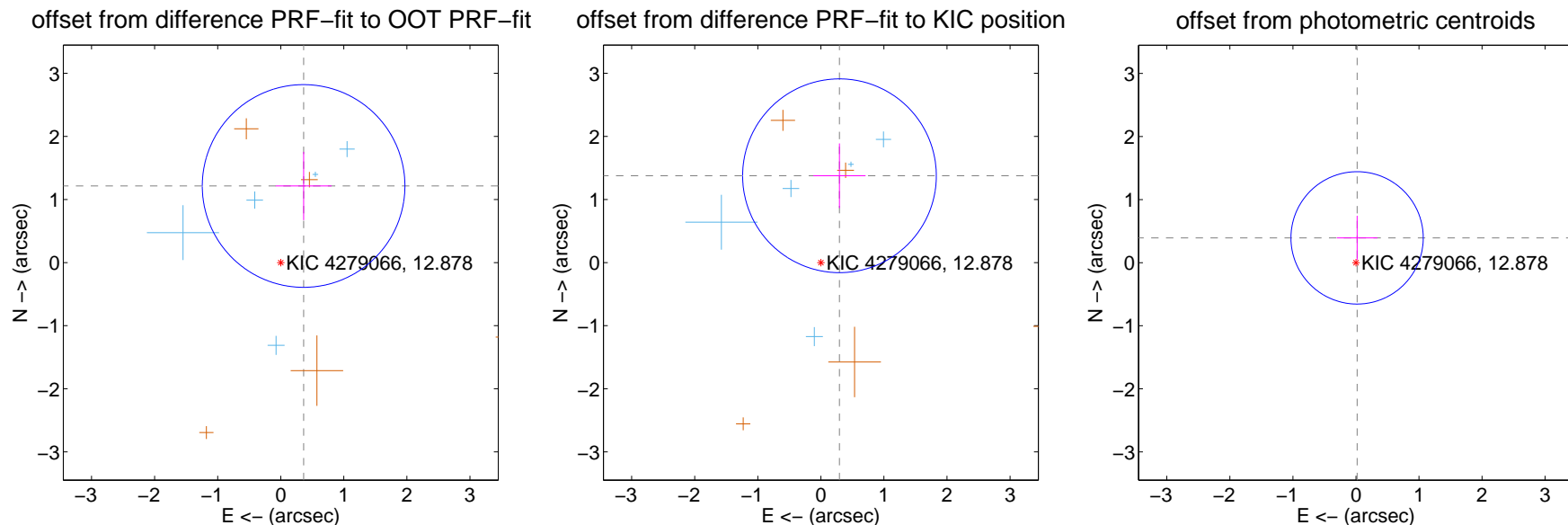
DV Centroid Data

Supplemental centroid analysis for 004279066-01. Kepler magnitude: 12.88. Transit SNR 12.61

There are 5 quarters with good PRF difference image offsets

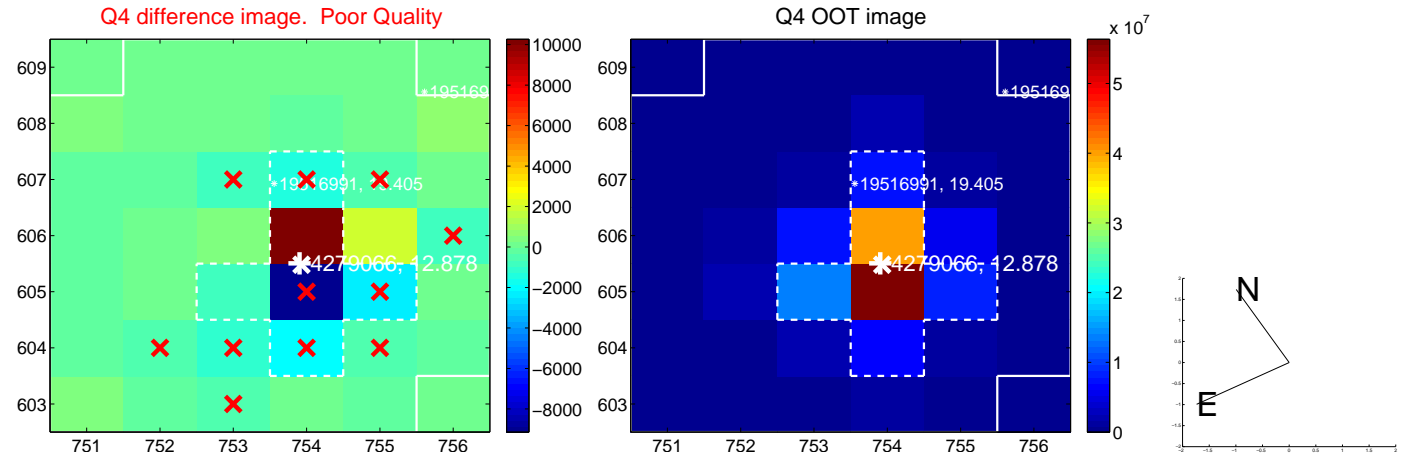
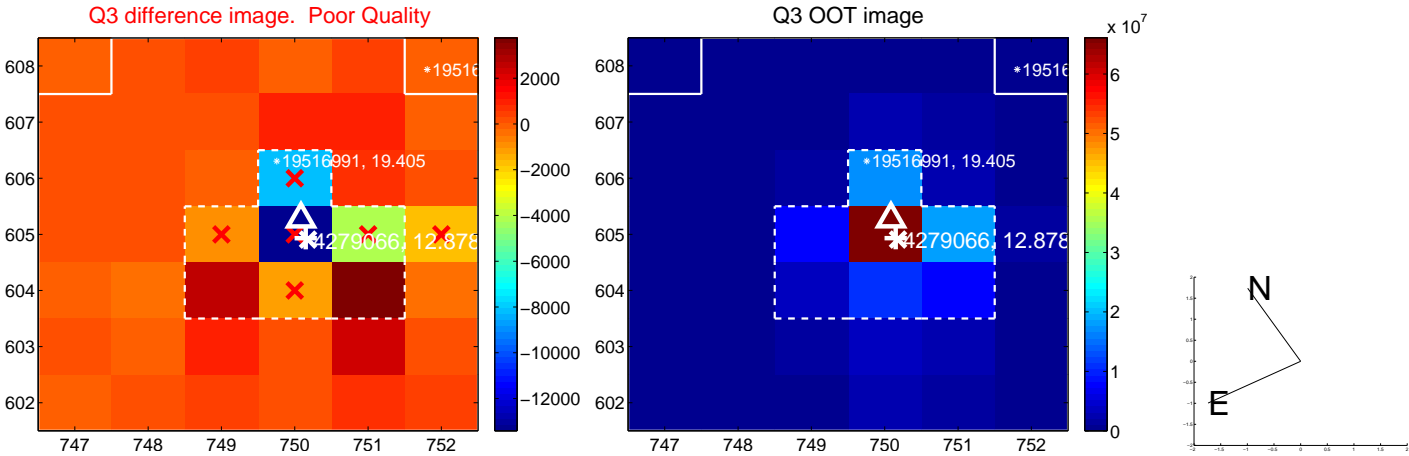
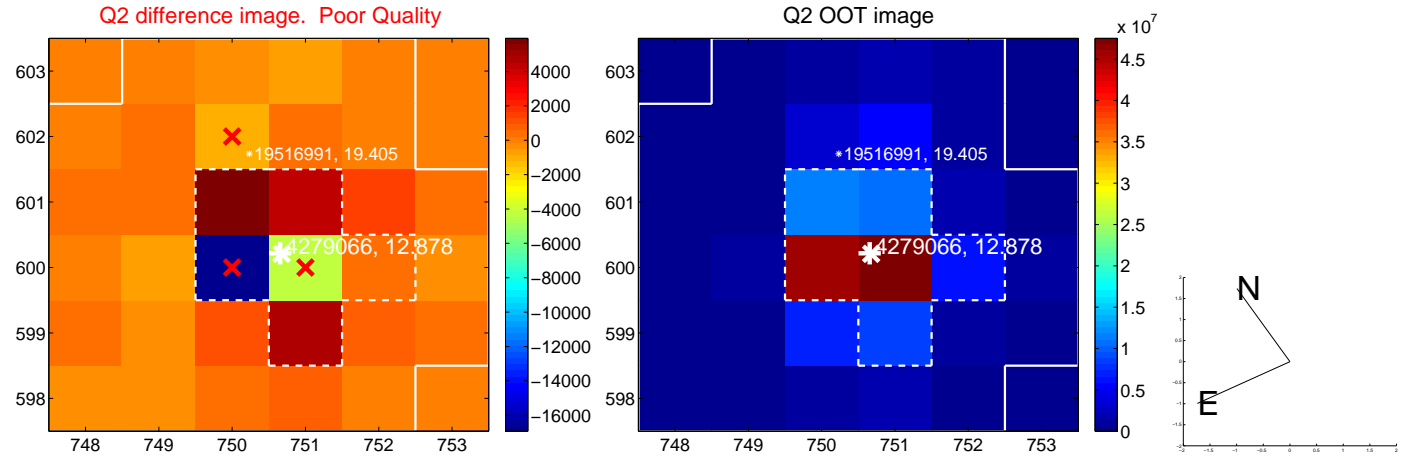
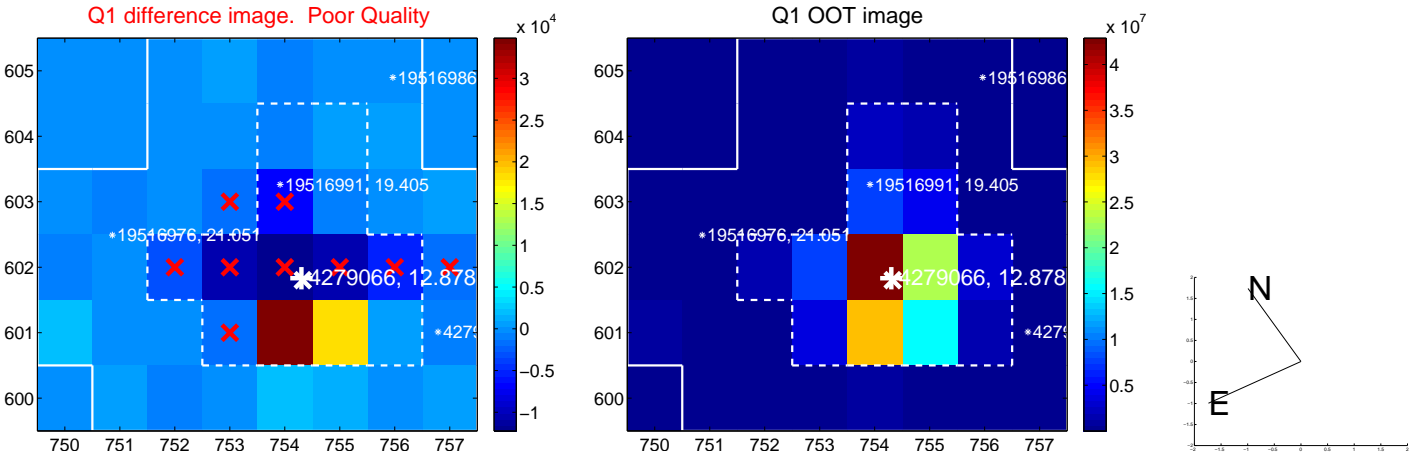
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.267 ± 0.535	2.37	-0.362 ± 0.443	1.214 ± 0.541
PRF-fit source offset from KIC position	1.407 ± 0.512	2.75	-0.295 ± 0.414	1.376 ± 0.512
photometric centroid source offset	0.39 ± 0.35	1.12	-0.02 ± 0.32	0.39 ± 0.35

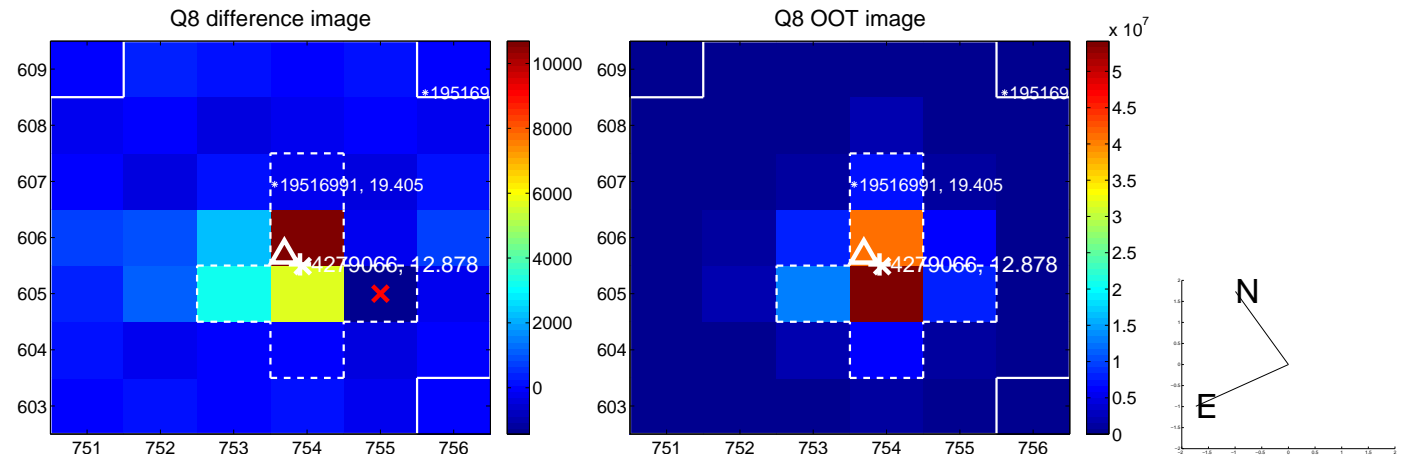
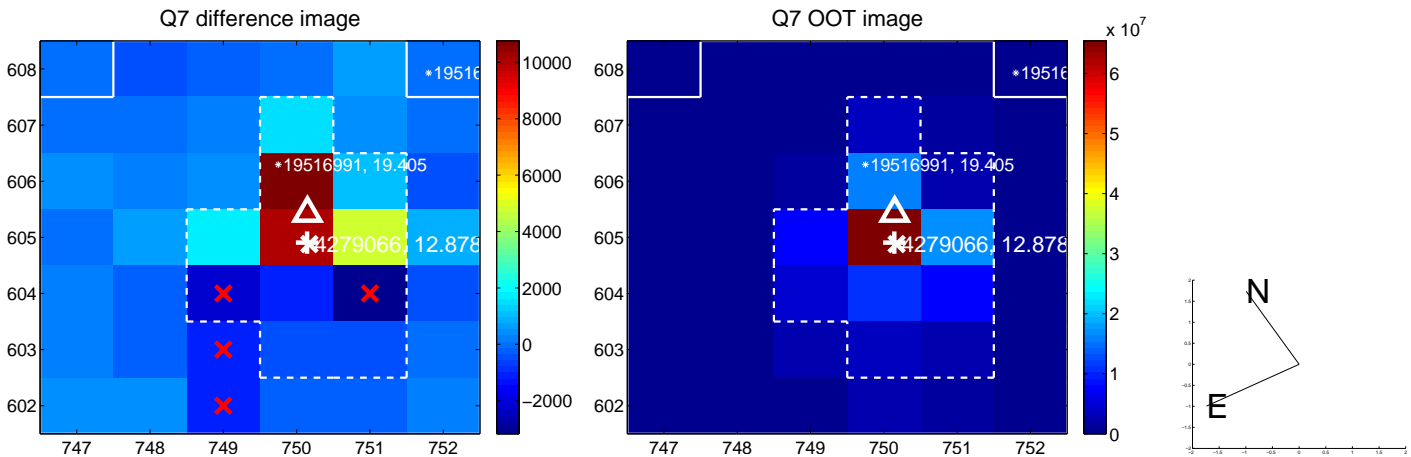
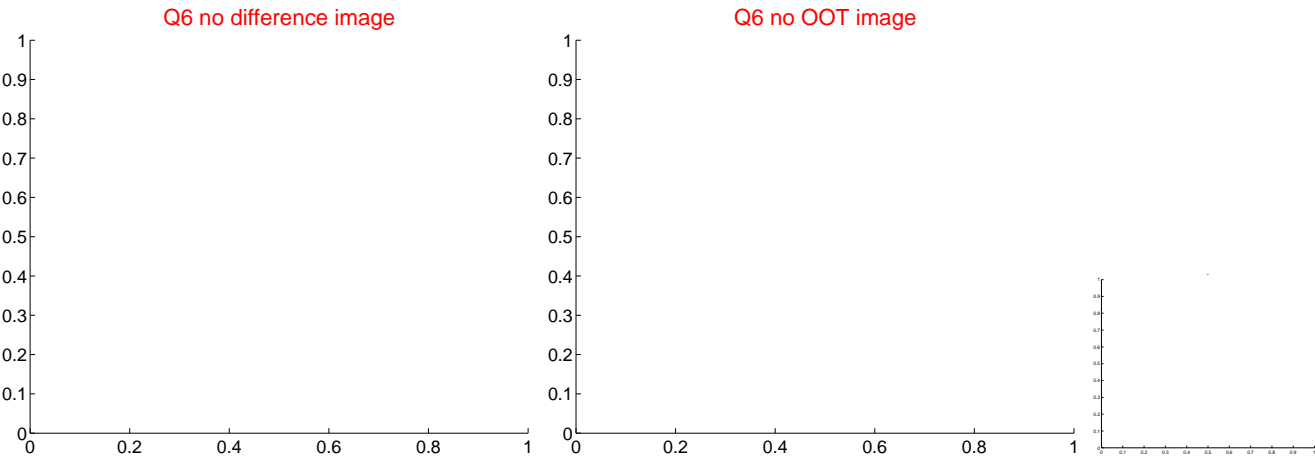
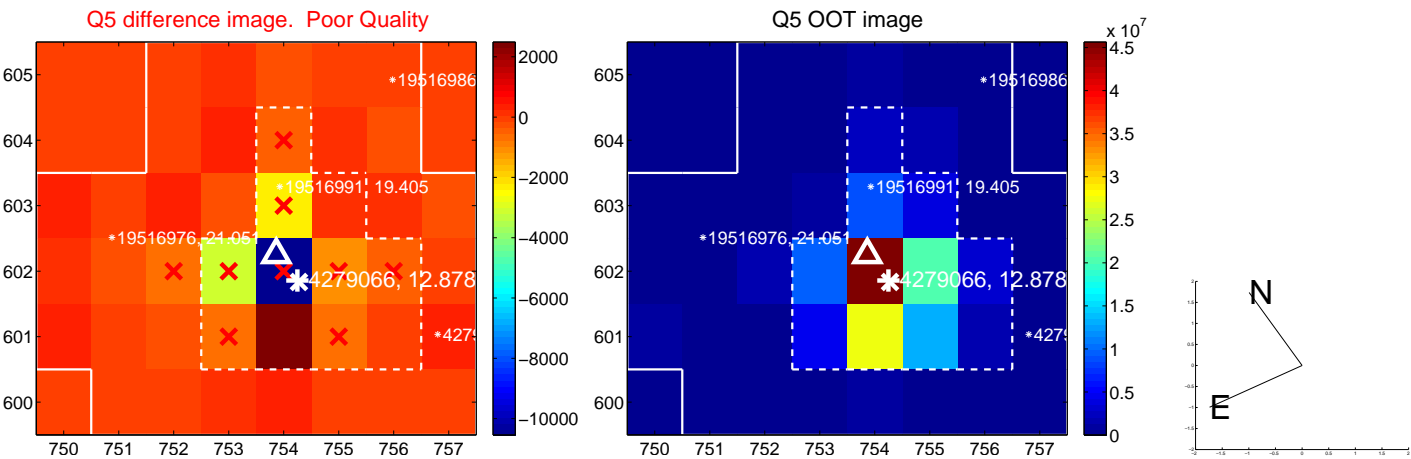


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

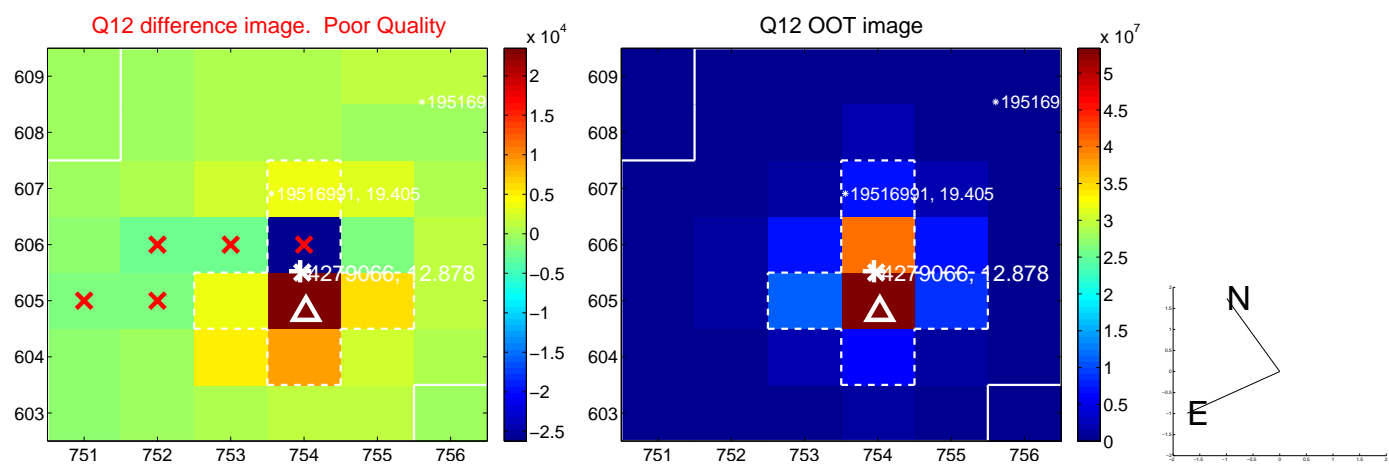
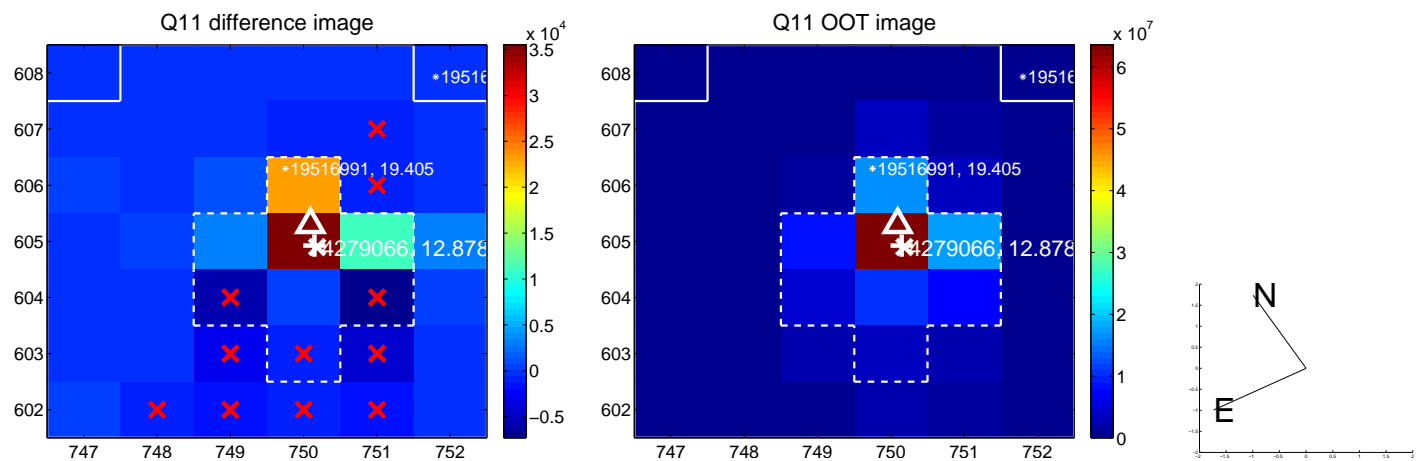
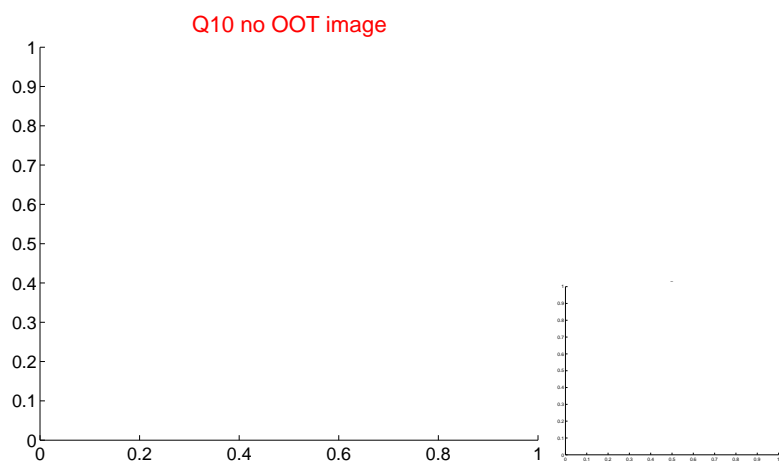
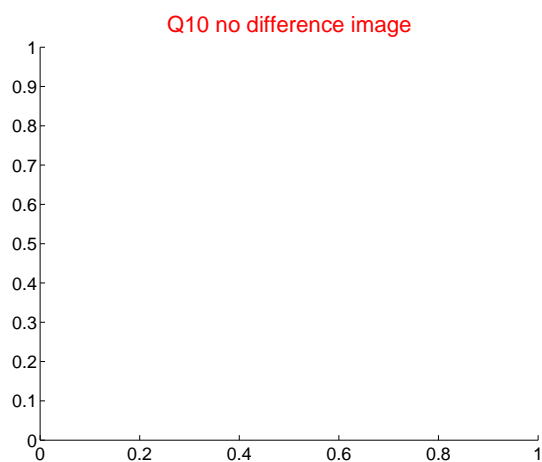
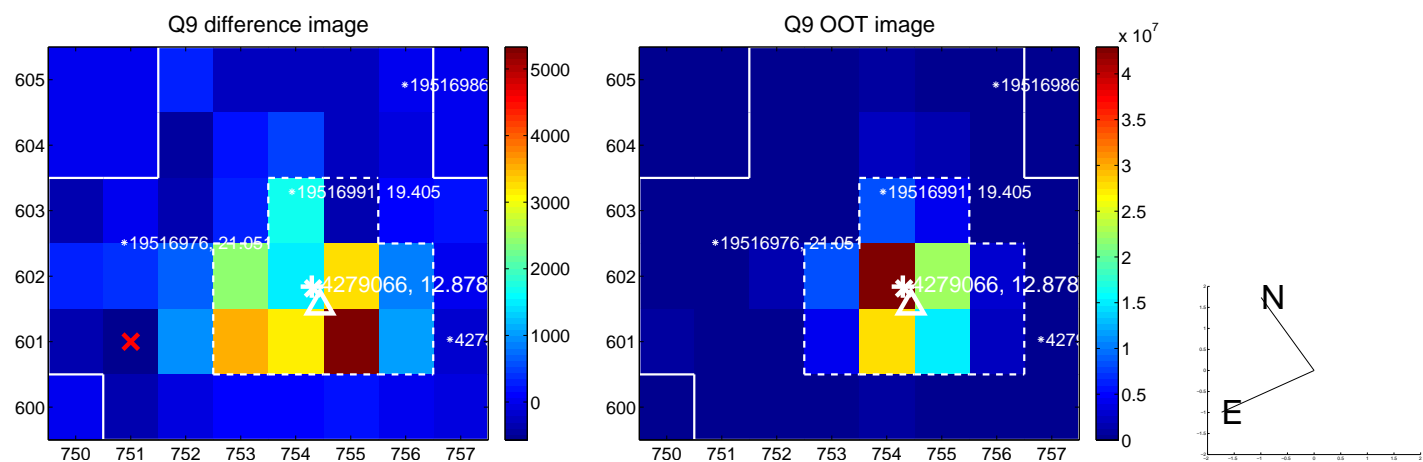
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



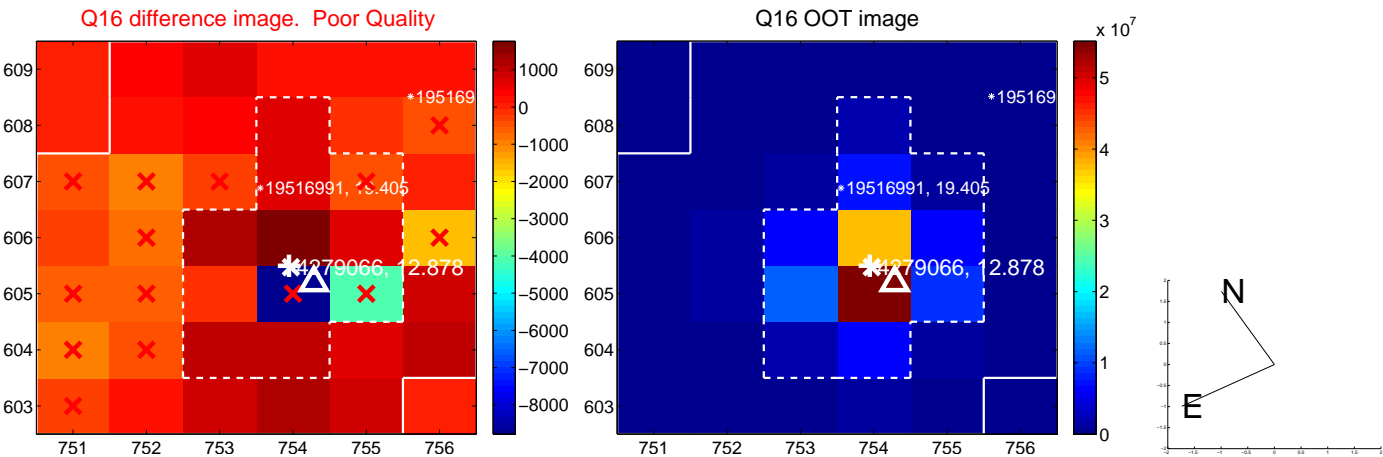
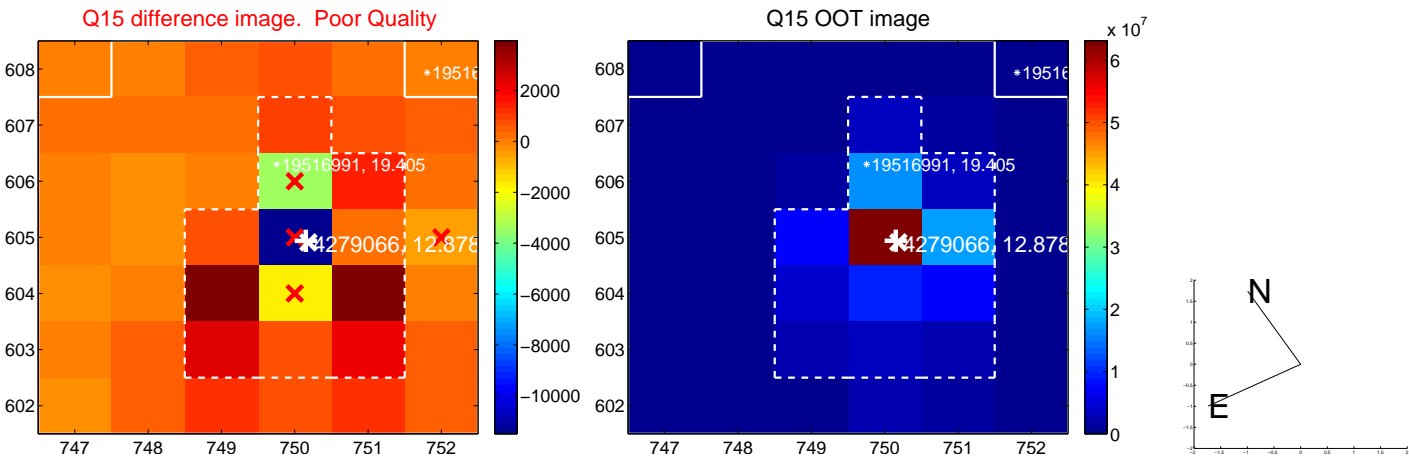
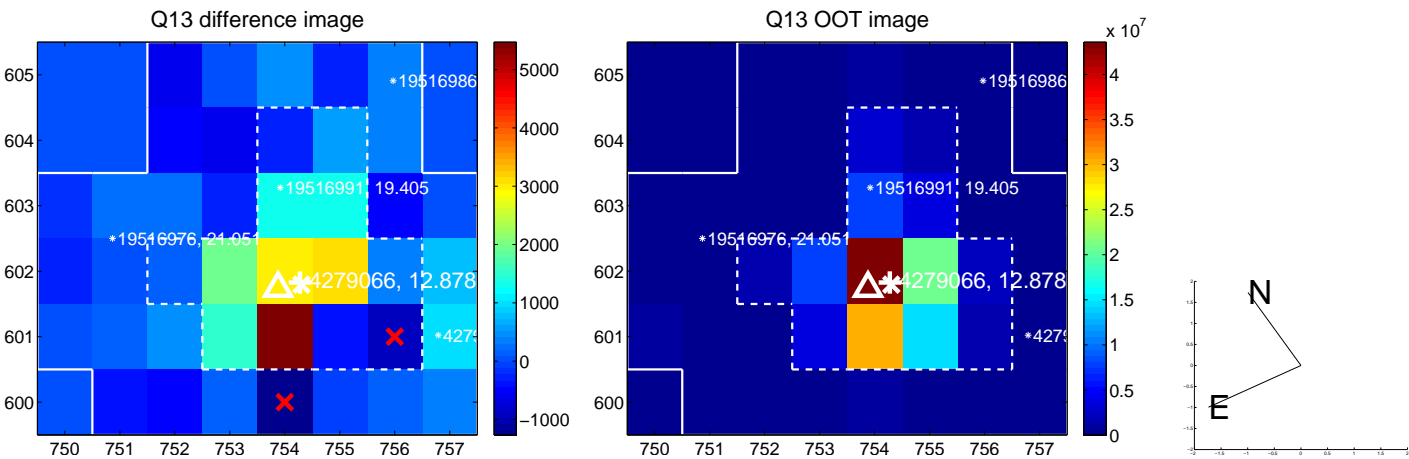
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



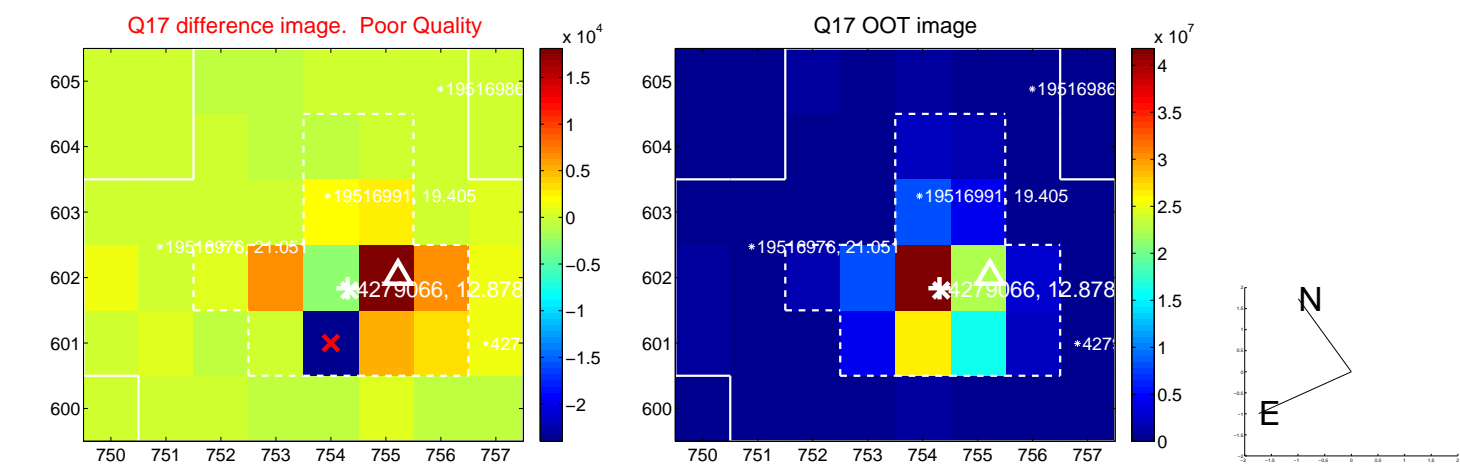
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



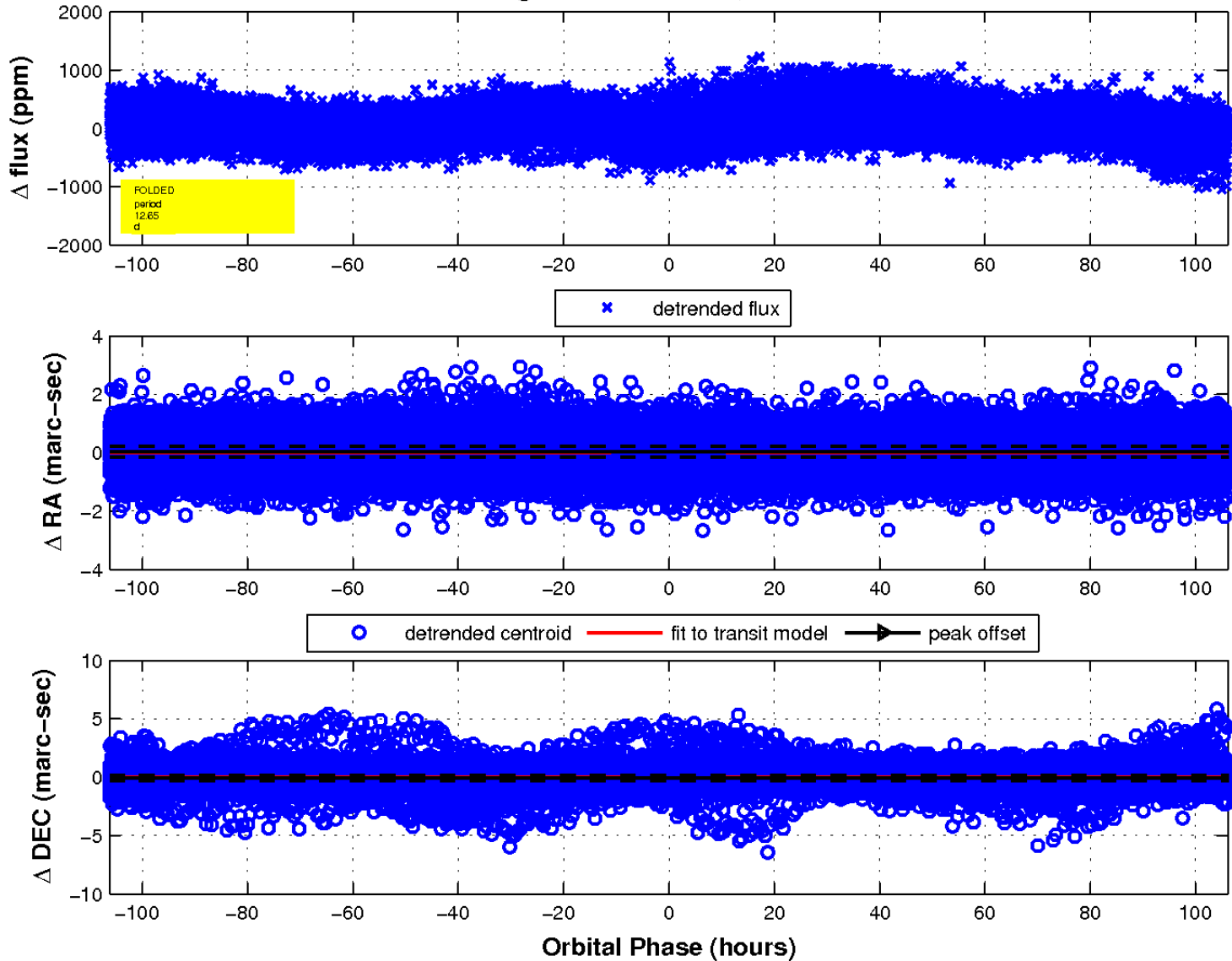
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

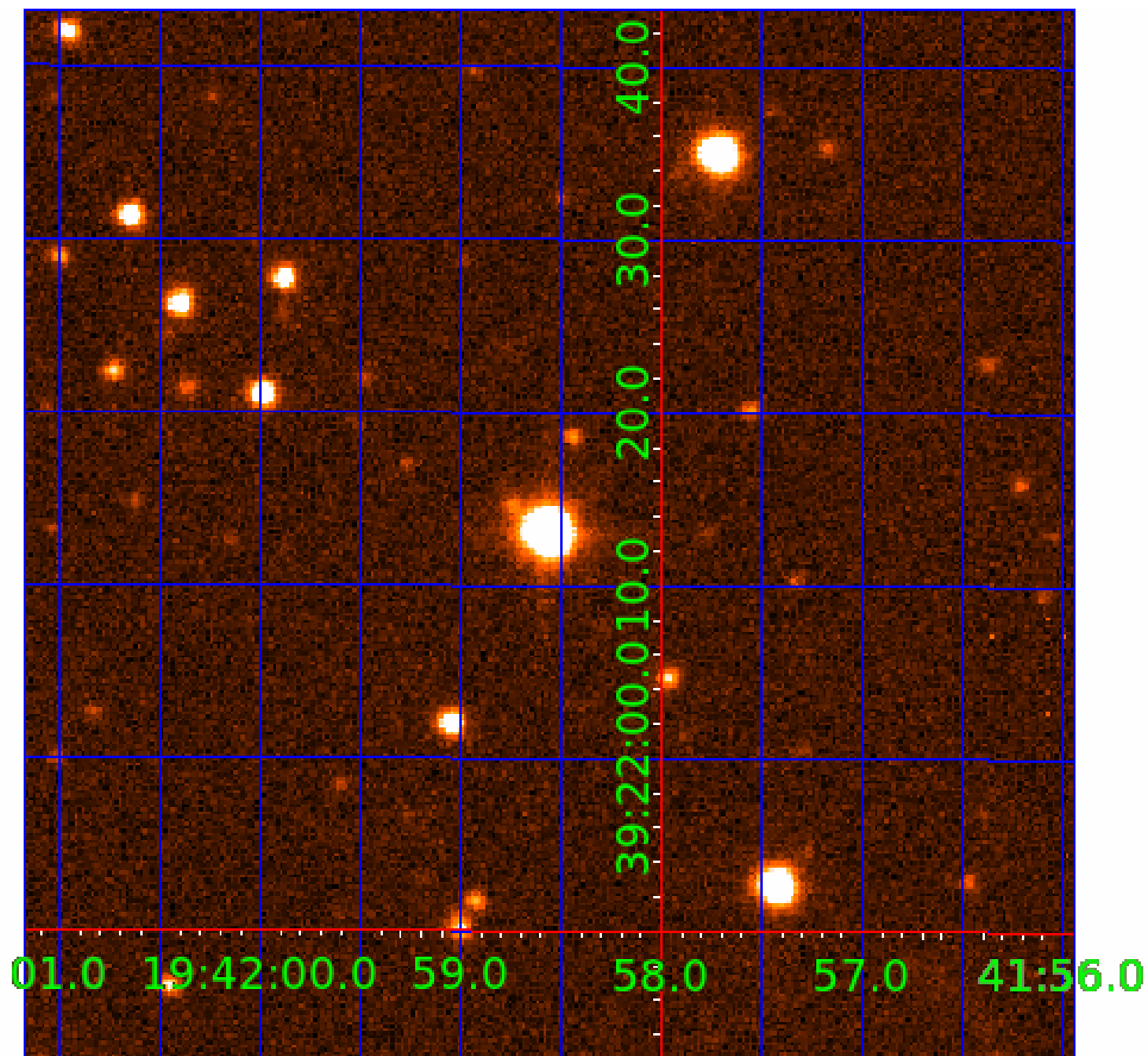


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 004279066

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})
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Robovetter Results

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004279066-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV
004279066-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—INCONSISTENT_TRANS—CENT_FEW_DIFFS
004279066-03	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD

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

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

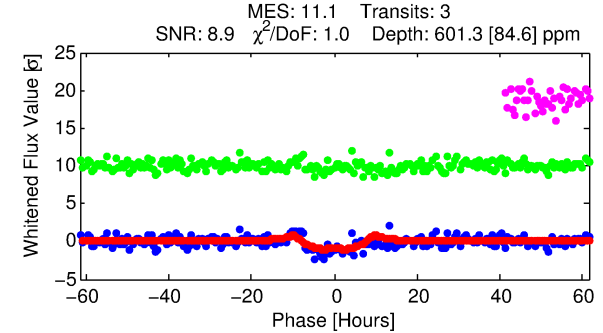
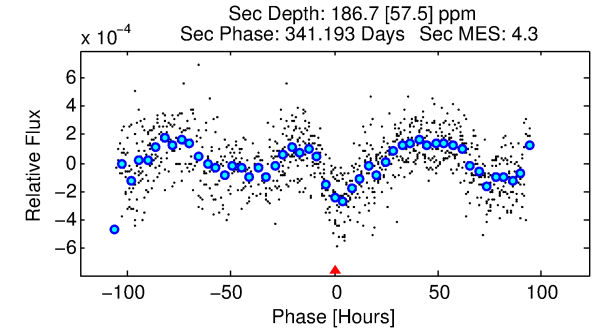
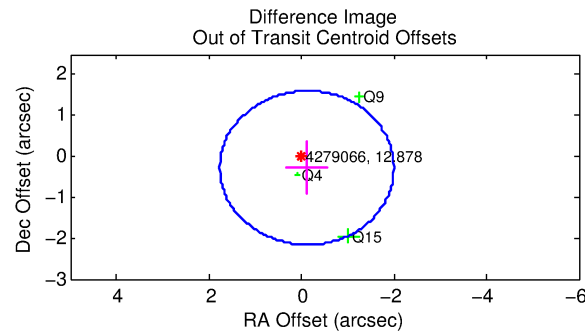
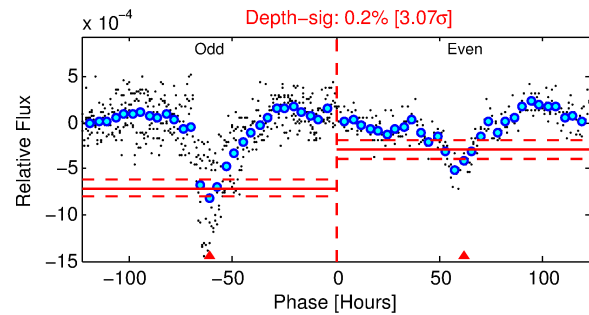
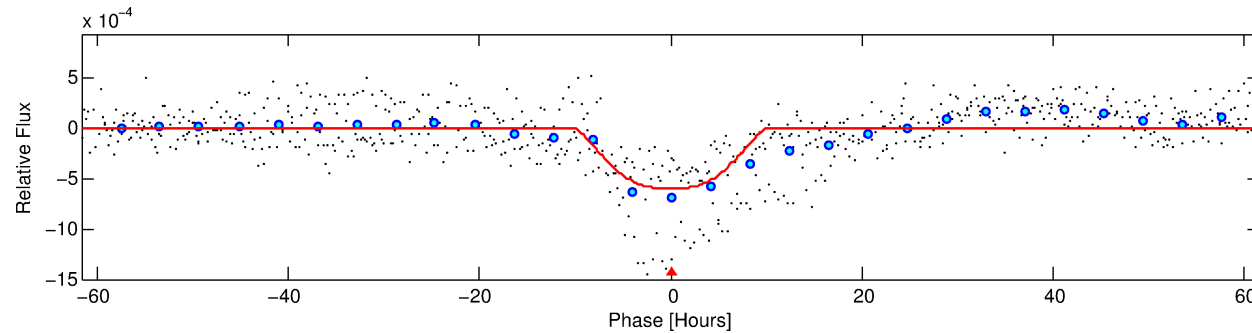
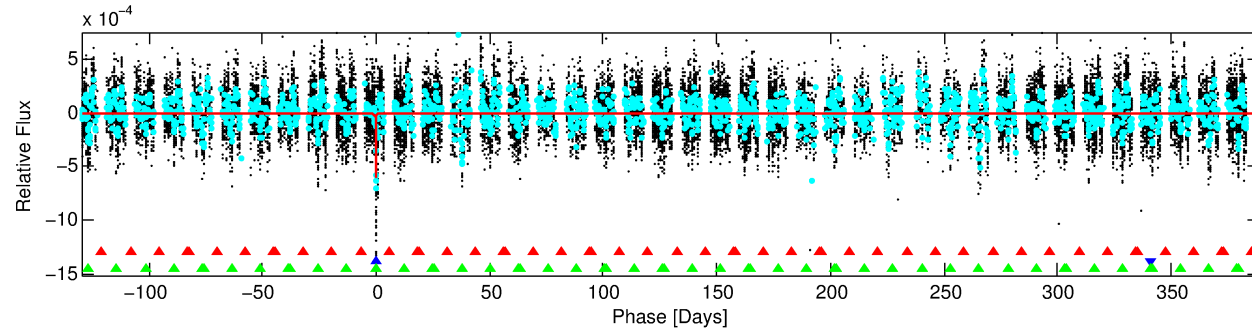
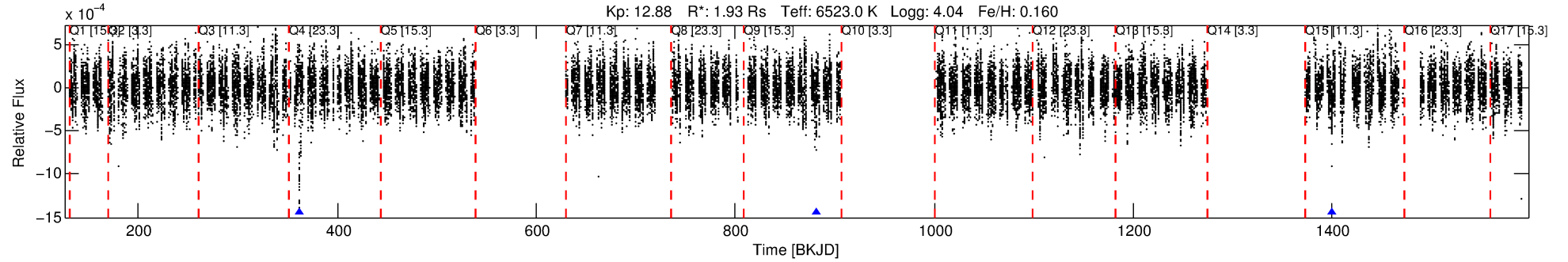
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004279066-02

No Significant Match Found

DV One-Page Summary

KIC: 4279066 Candidate: 2 of 3 Period: 518.636 d



DV Fit Results:

Period = 518.63563 [0.02107] d
Epoch = 362.3655 [0.0263] BKJD
Rp/R* = 0.0291 [0.0024]
a/R* = 66.70 [5.92]
b = 0.97 [0.01]
Seff = 2.91 [0.85]
Teq = 333 [24] K
Rp = 6.12 [1.31] Re
a = 1.4378 [0.2652] AU
Ag = 5676.35 [2571.70] [2.21σ]
Teffp = 4470 [393] K [10.51σ]

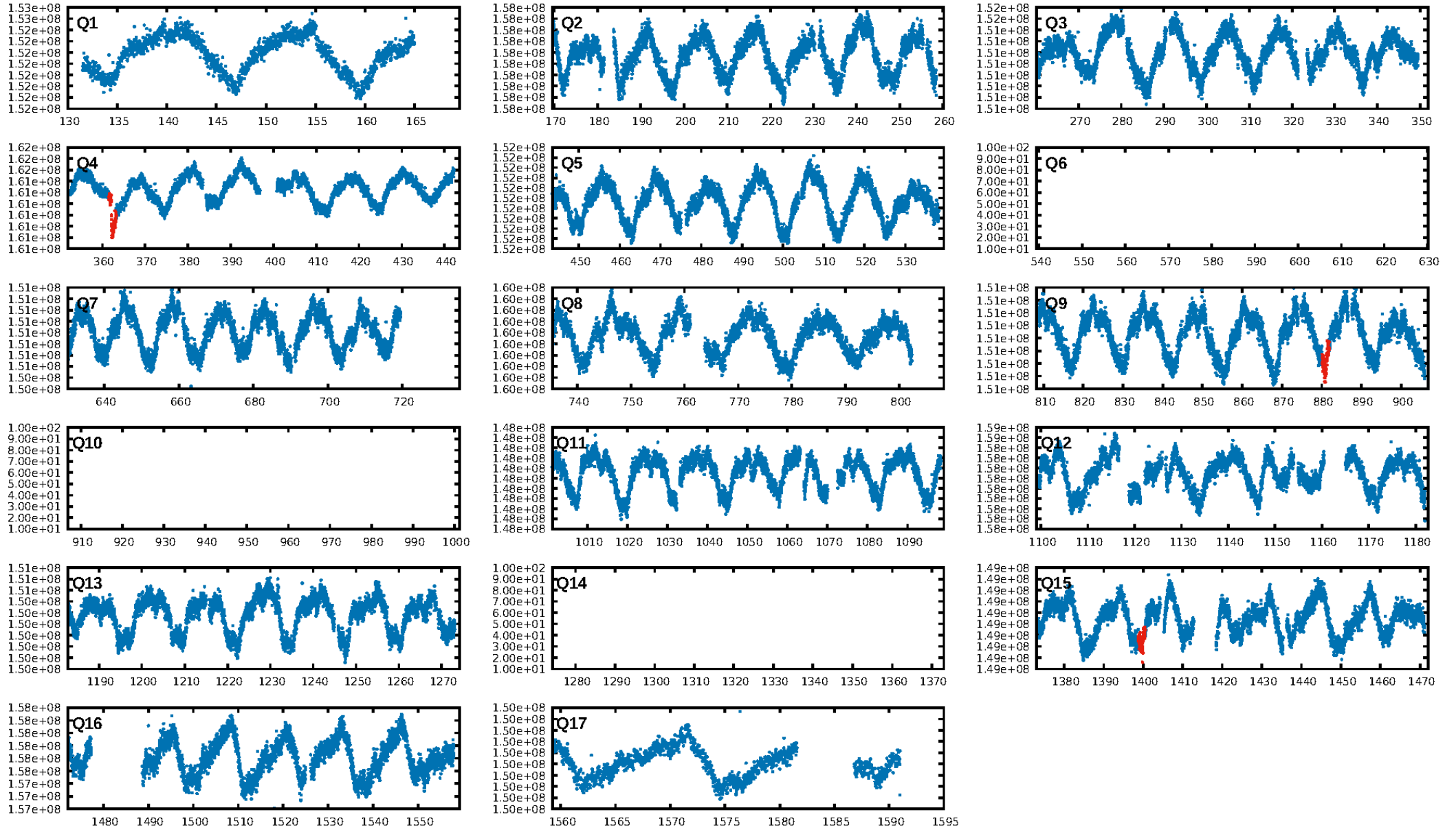
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [407.30σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 98.8%
Bootstrap-pfa: 3.74e-24
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.4051
Centroid-sig: 26.1%
Centroid-so: 0.388 arcsec [0.74σ]
OotOffset-rm: 0.302 arcsec [0.48σ]
KicOffset-rm: 0.160 arcsec [0.26σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 0.00 [0/3]

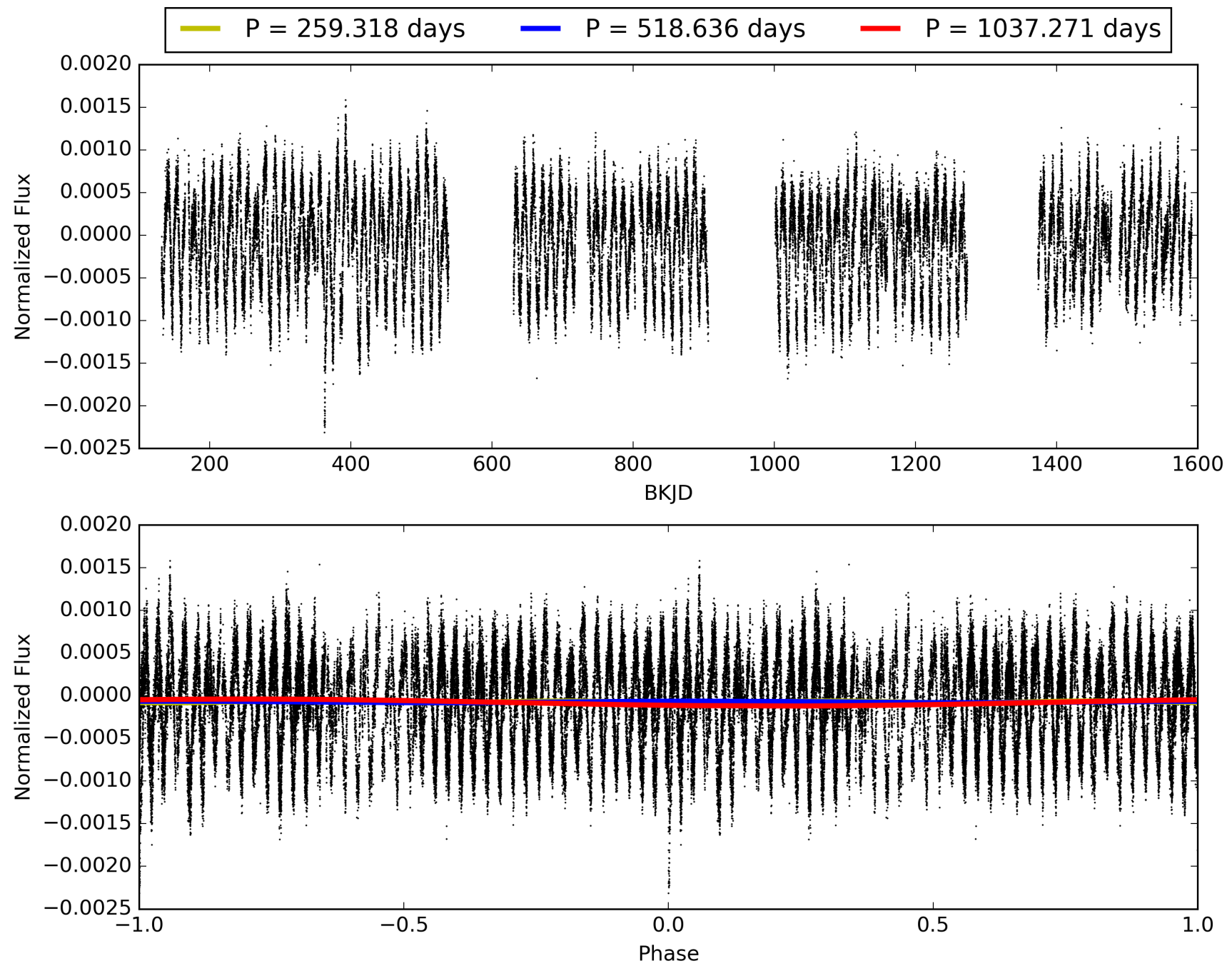
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 004279066-02, PDC Light Curves

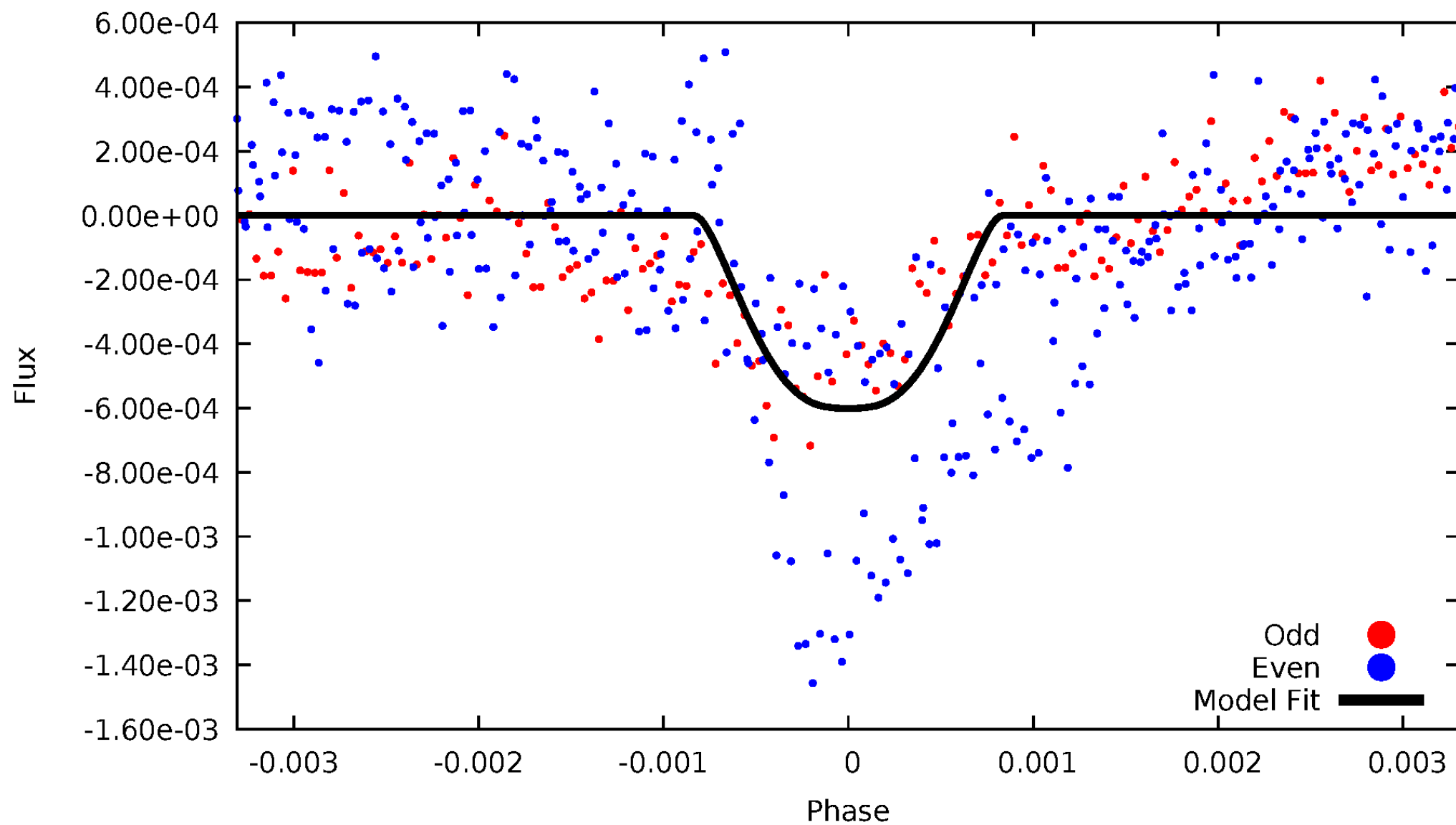


TCE 004279066-02



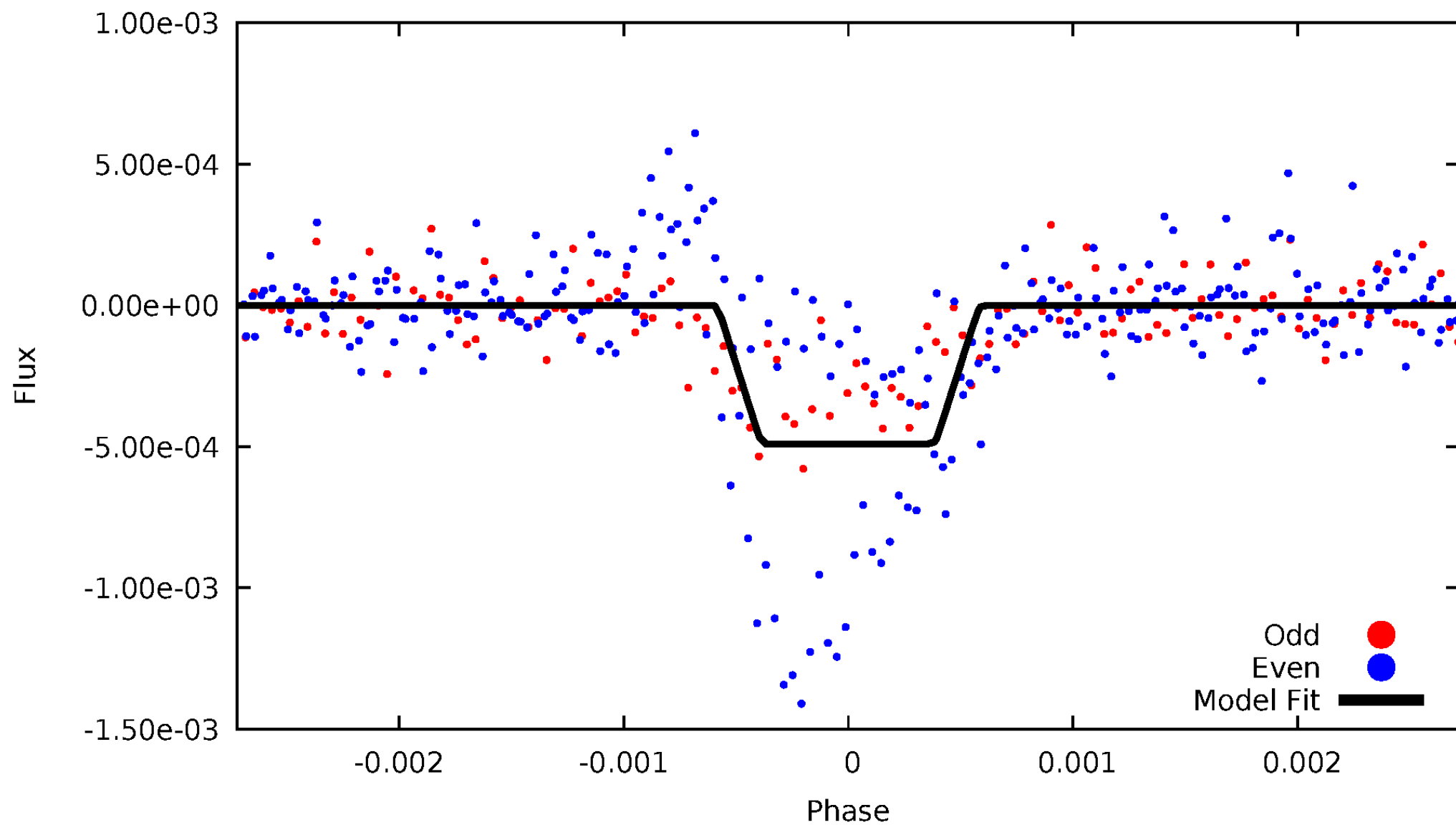
DV Odd/Even

TCE 004279066-02



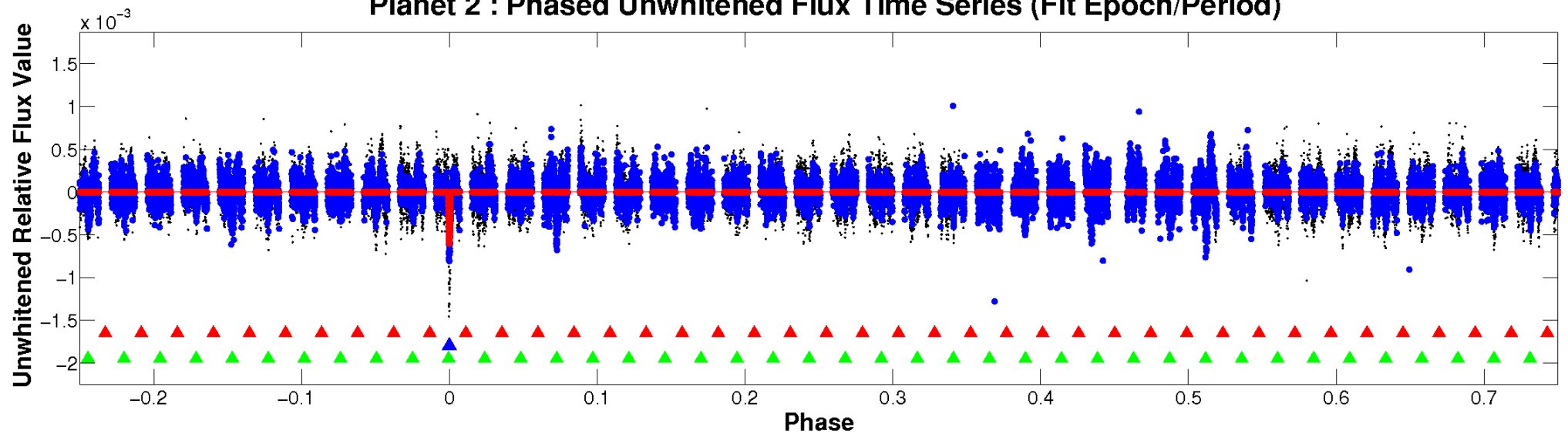
ALT Odd/Even

TCE 004279066-02

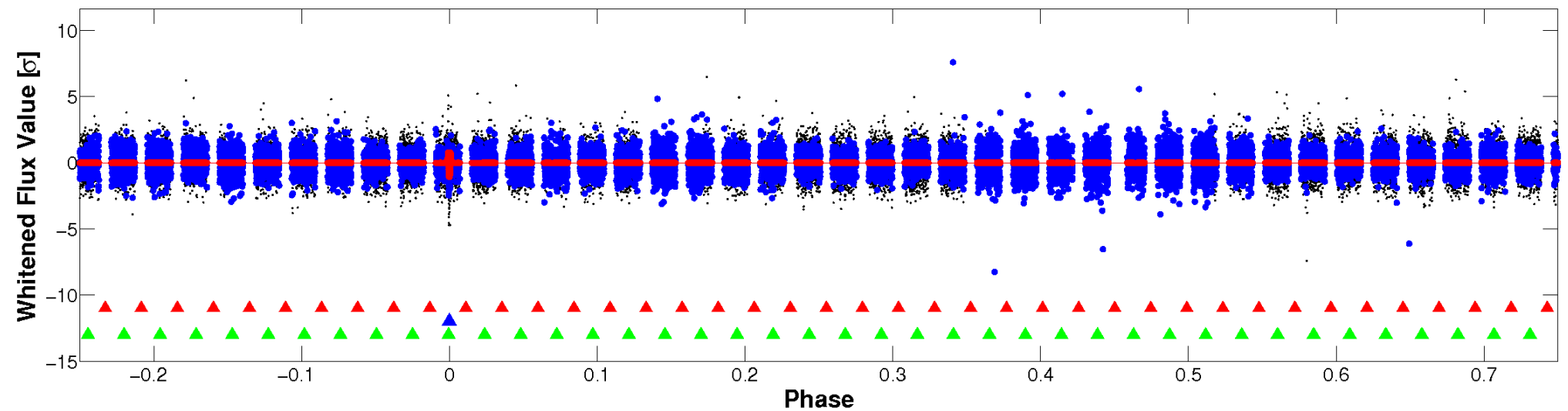


Non-Whitened Vs. Whitened Light Curve

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

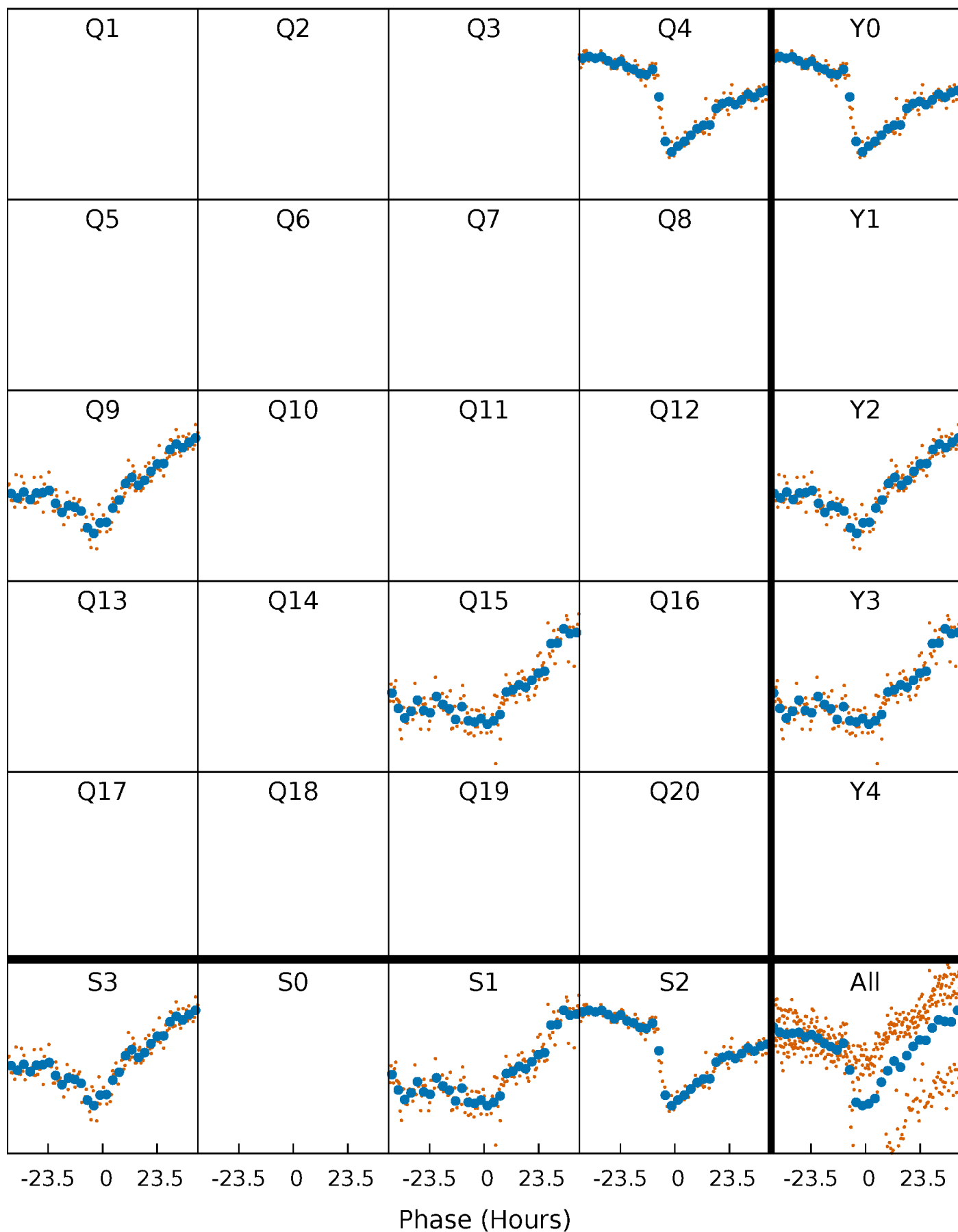


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



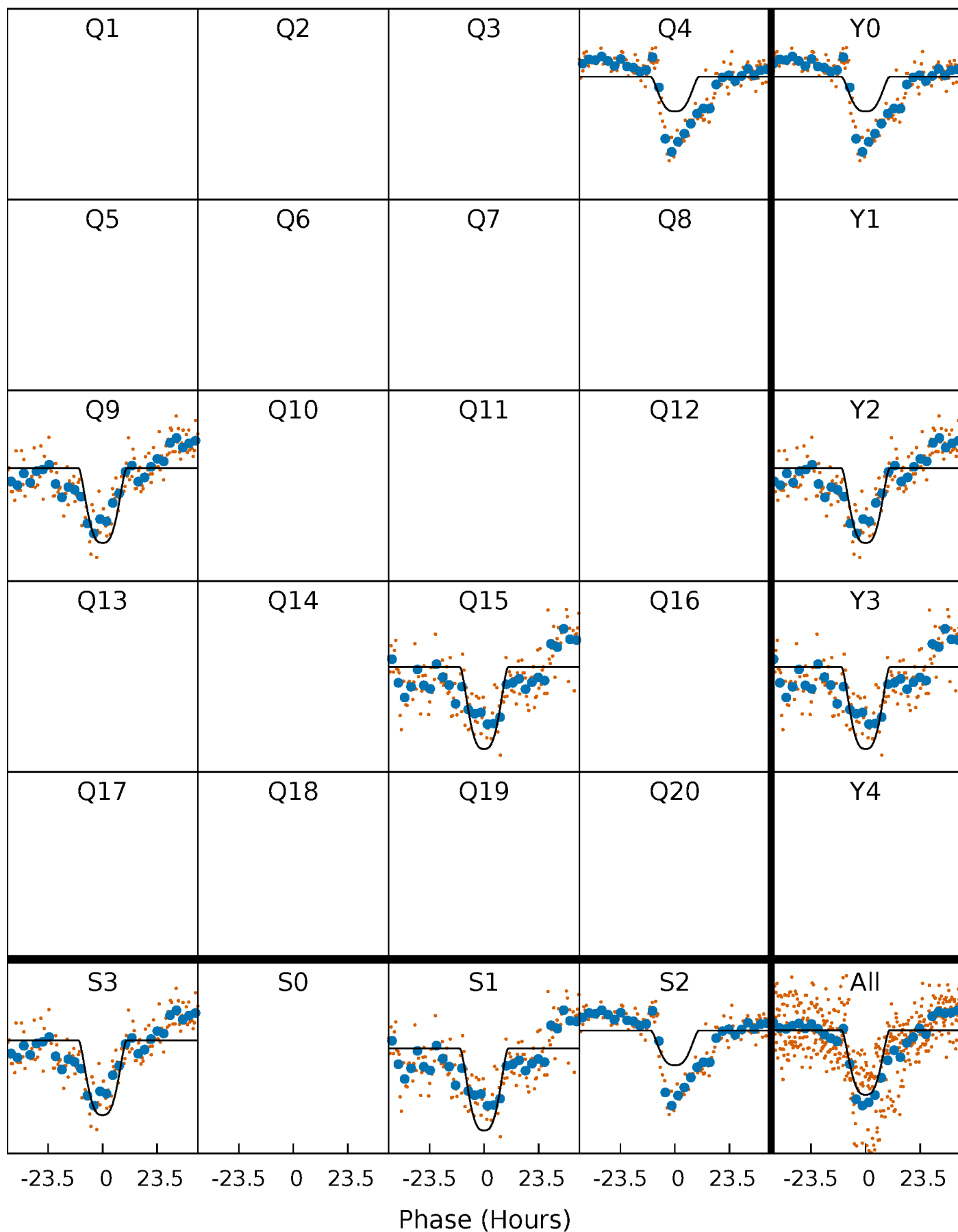
PDC Quarter-Phased Transit Curves

TCE 004279066-02 P=518.635632 Days $T_0=362.365520$ (BKJD)



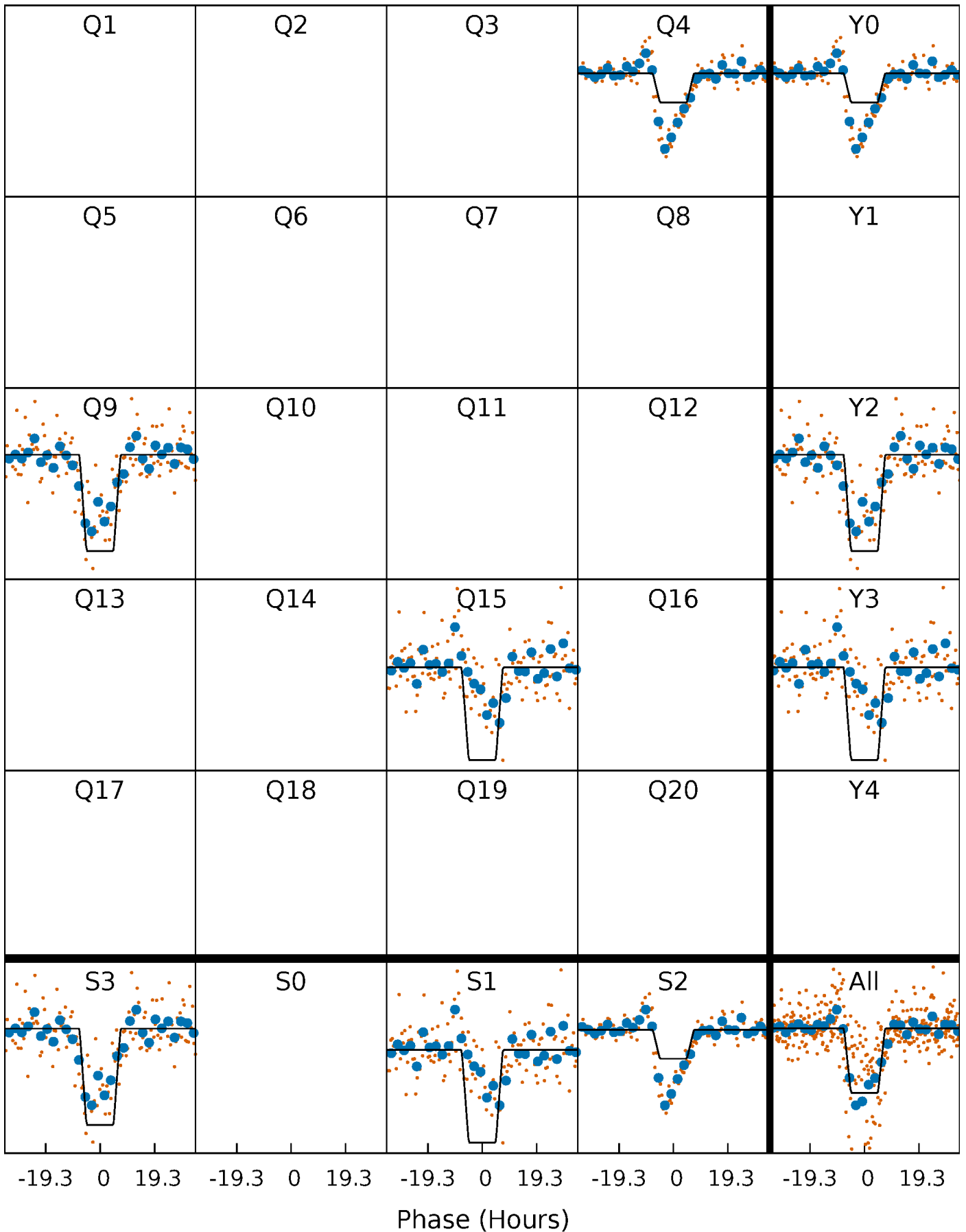
DV Quarter-Phased Transit Curves

TCE 004279066-02 $P=518.635632$ Days $T_0=362.365520$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

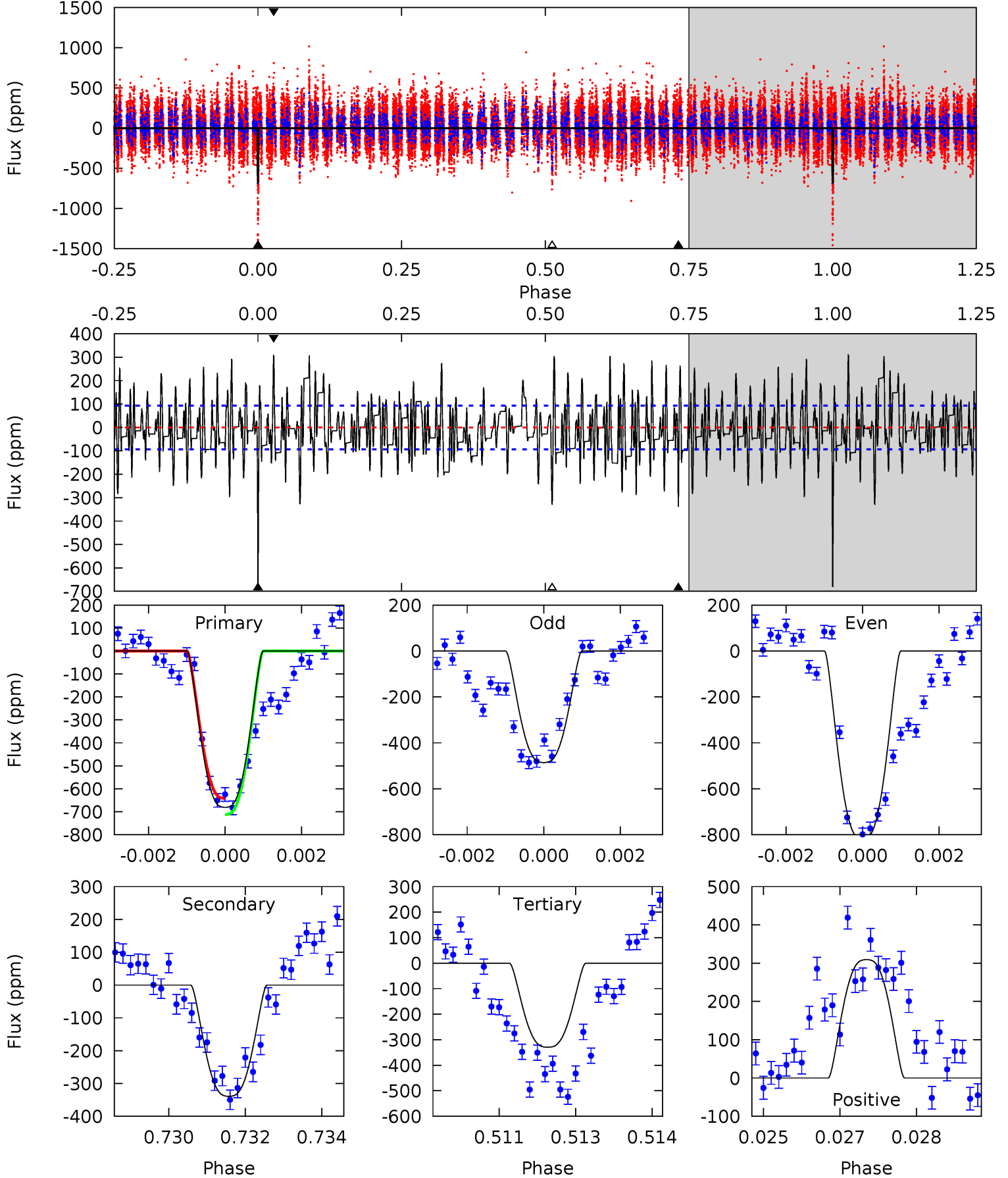
TCE 004279066-02 P=518.624186 Days $T_0=362.374392$ (BKJD)



DV Model-Shift Uniqueness Test

004279066-02, P = 518.635632 Days, E = 362.365520 Days

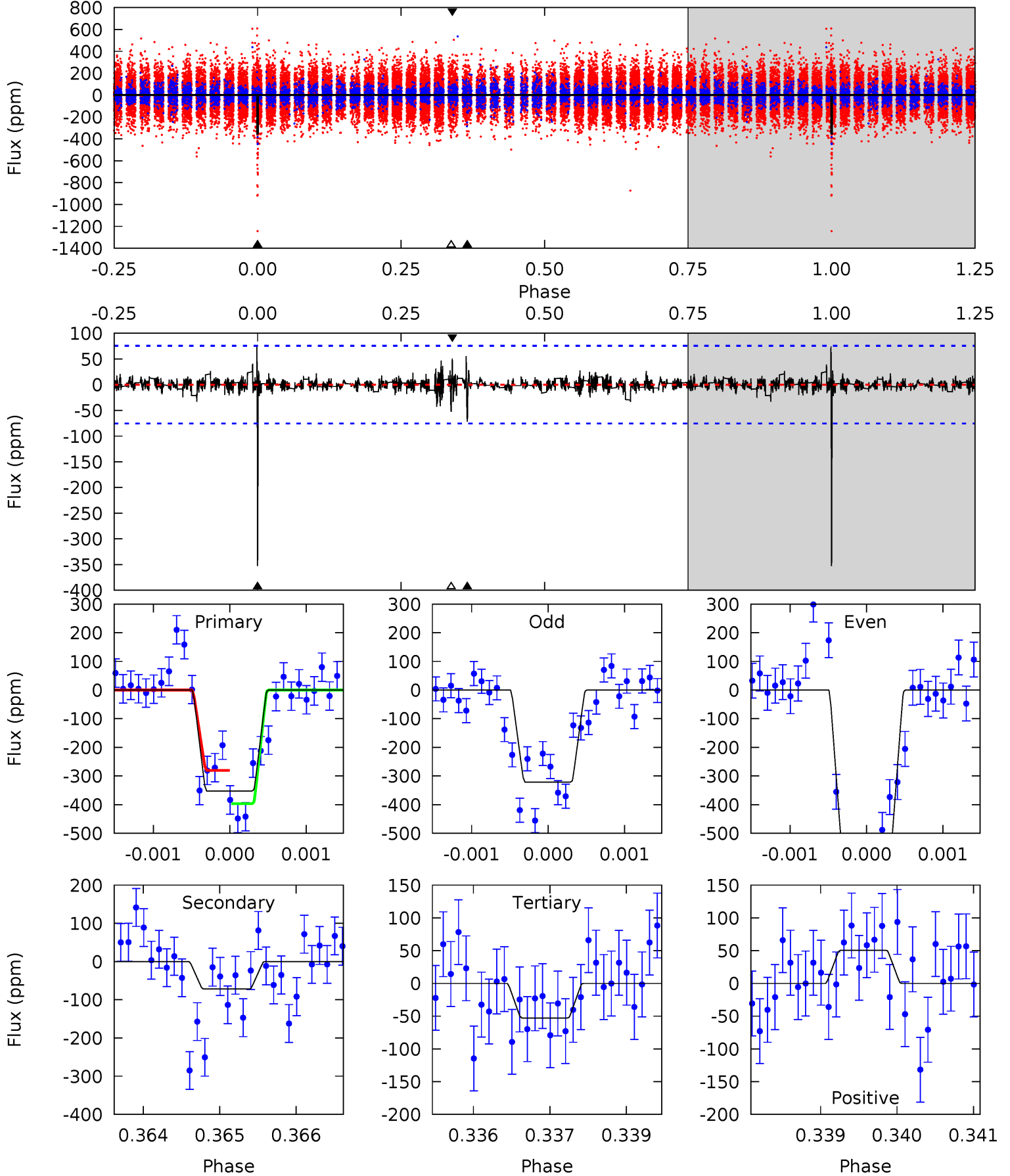
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
39.1	19.5	18.9	17.7	5.36	3.14	6.29	20.2	21.3	0.56	1.71	9.16	1.45	0.31	2.01



Alt Model-Shift Uniqueness Test

004279066-02, P = 518.624186 Days, E = 362.374392 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.2	5.16	3.78	3.62	5.42	3.24	0.61	21.4	21.6	1.37	1.54	9.09	1.50	0.17	4.15



Stellar Parameters For KIC 004279066

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6523^{+78}_{-78}	$4.037^{+0.168}_{-0.112}$	$0.160^{+0.150}_{-0.150}$	$1.926^{+0.343}_{-0.381}$	$1.471^{+0.128}_{-0.142}$	$0.290^{+0.261}_{-0.102}$
	+1%/-1%	+4%/-3%	+94%/-94%	+18%/-20%	+9%/-10%	+90%/-35%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 004279066-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-339 ± 17	$6.01^{+0.78}_{-0.81}$	463^{+22}_{-24}	5248^{+226}_{-192}	10714^{+3540}_{-2247}
Alt.	-72 ± 14	$4.63^{+0.72}_{-0.68}$	466^{+20}_{-25}	4268^{+241}_{-220}	3827^{+1464}_{-1144}

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

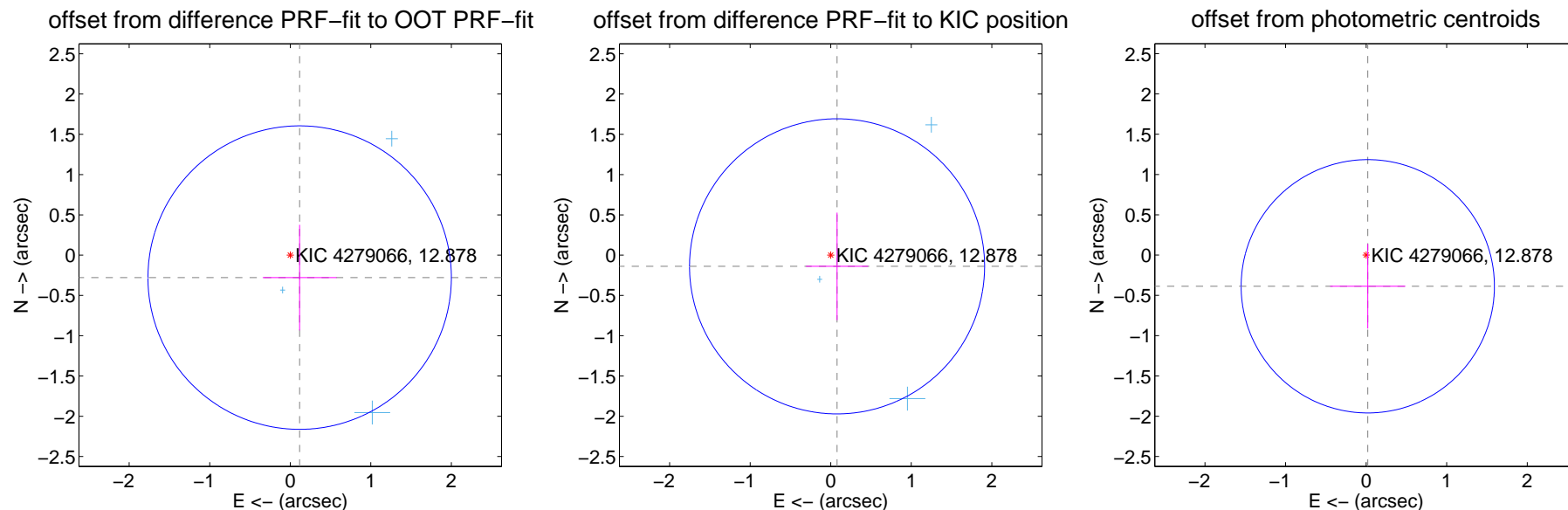
DV Centroid Data

Supplemental centroid analysis for 004279066-02. Kepler magnitude: 12.88. Transit SNR 8.87

There are 3 quarters with good PRF difference image offsets

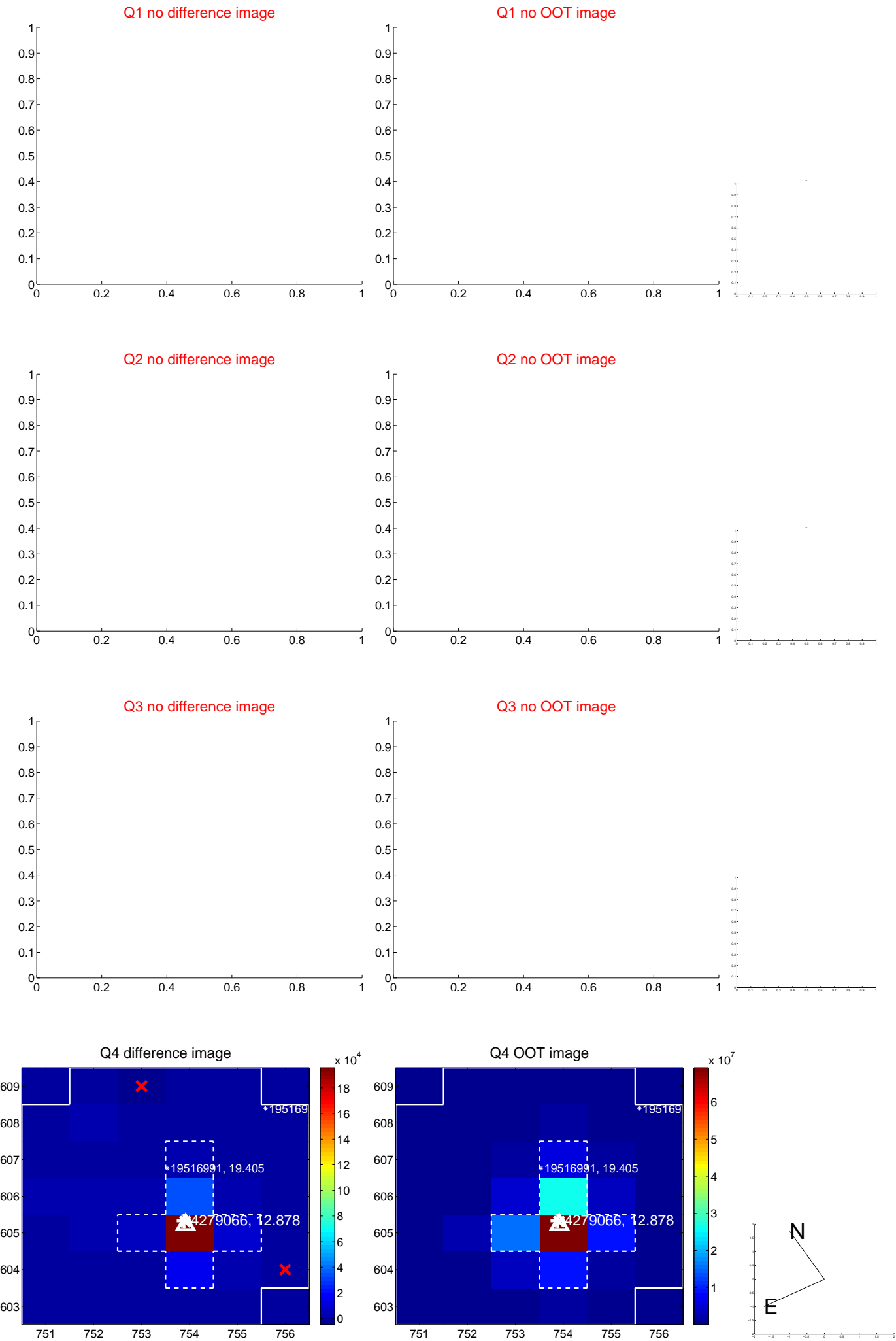
The direct PRF centroid is offset from the target star catalog position by about 0.19 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.302 ± 0.628	0.48	-0.117 ± 0.458	-0.279 ± 0.655
PRF-fit source offset from KIC position	0.160 ± 0.611	0.26	-0.079 ± 0.387	-0.139 ± 0.667
photometric centroid source offset	0.39 ± 0.52	0.74	-0.02 ± 0.47	-0.39 ± 0.52



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

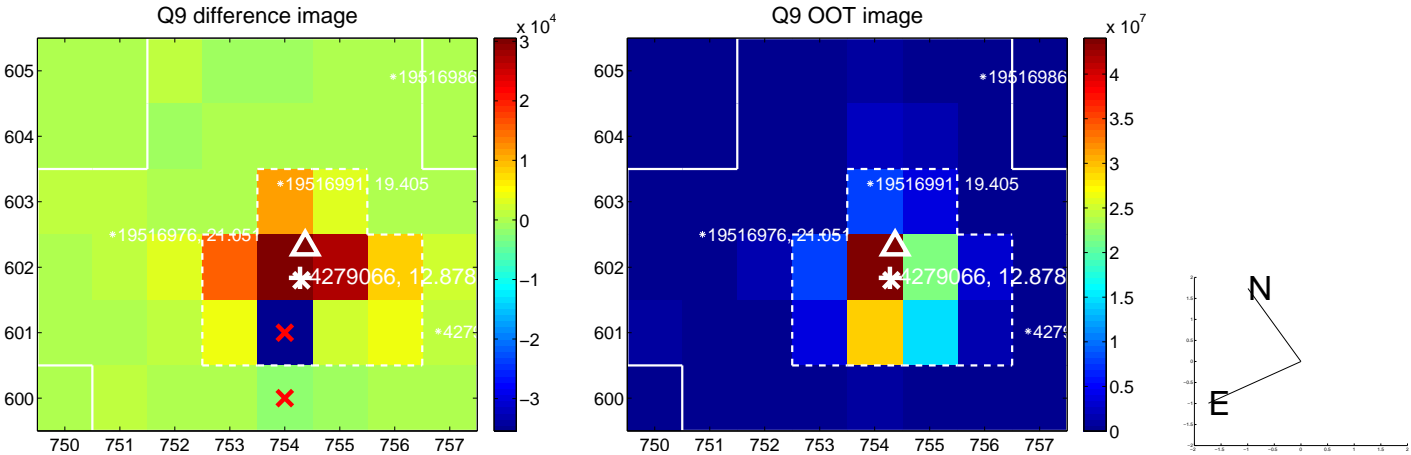
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



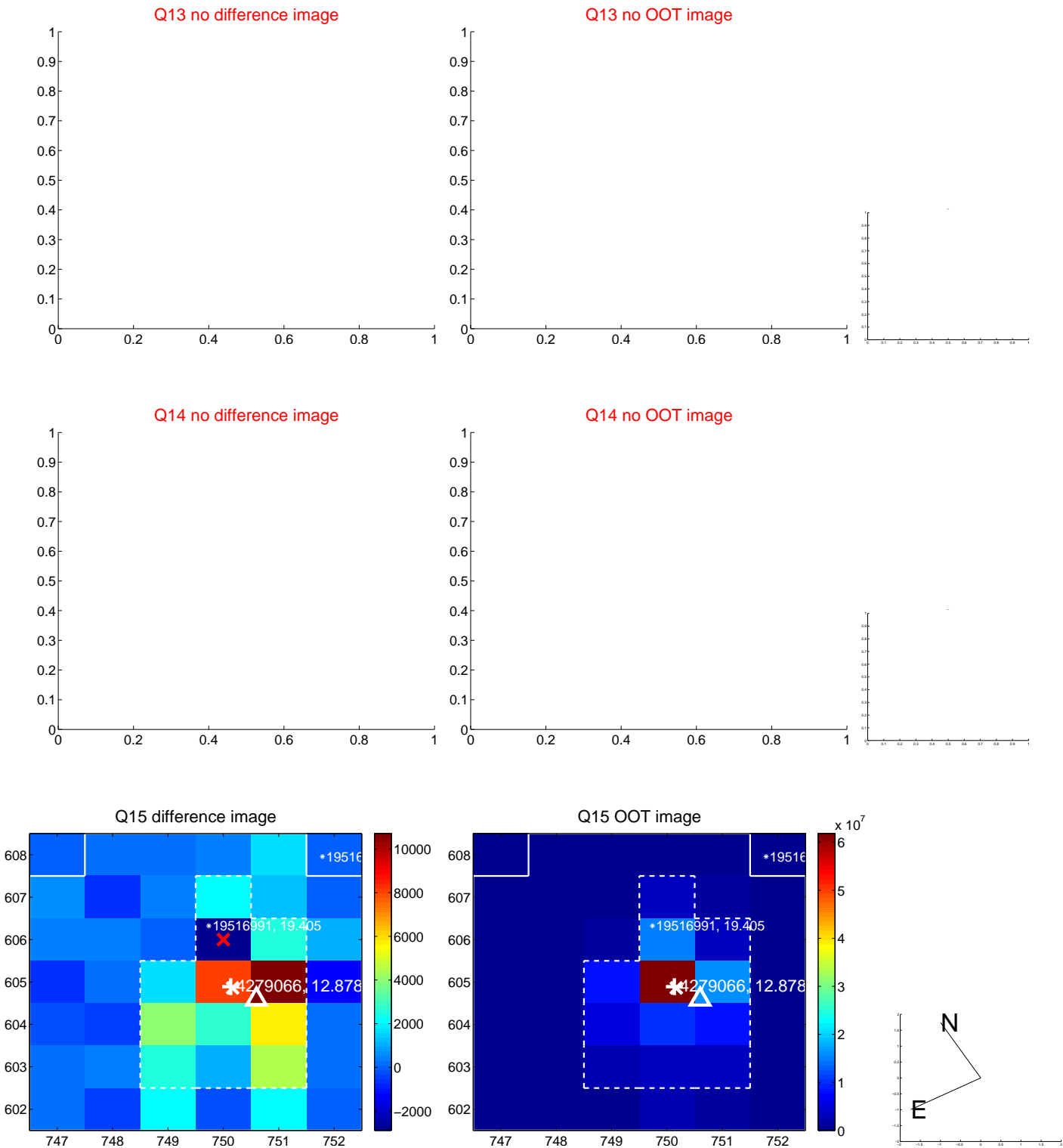
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



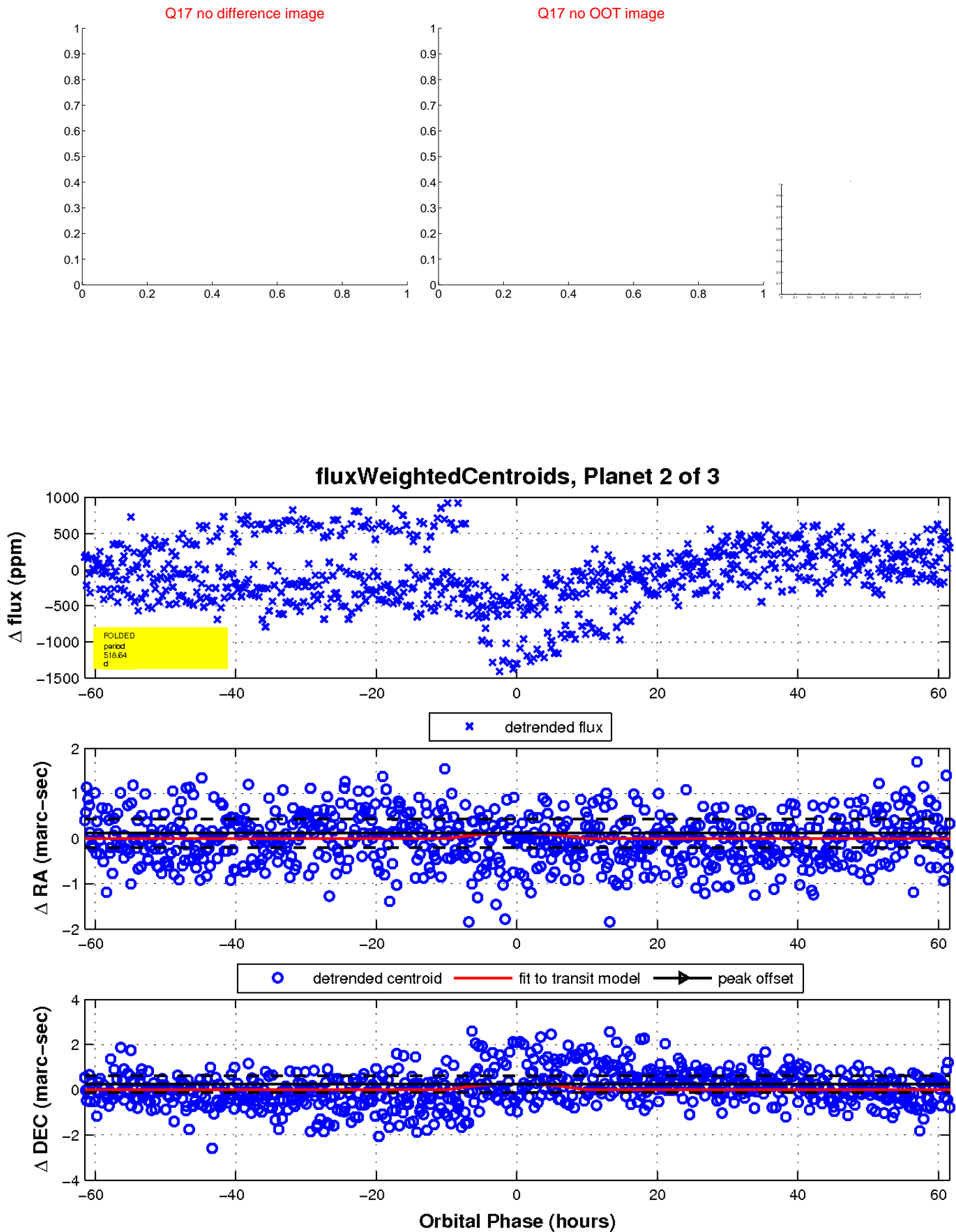
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

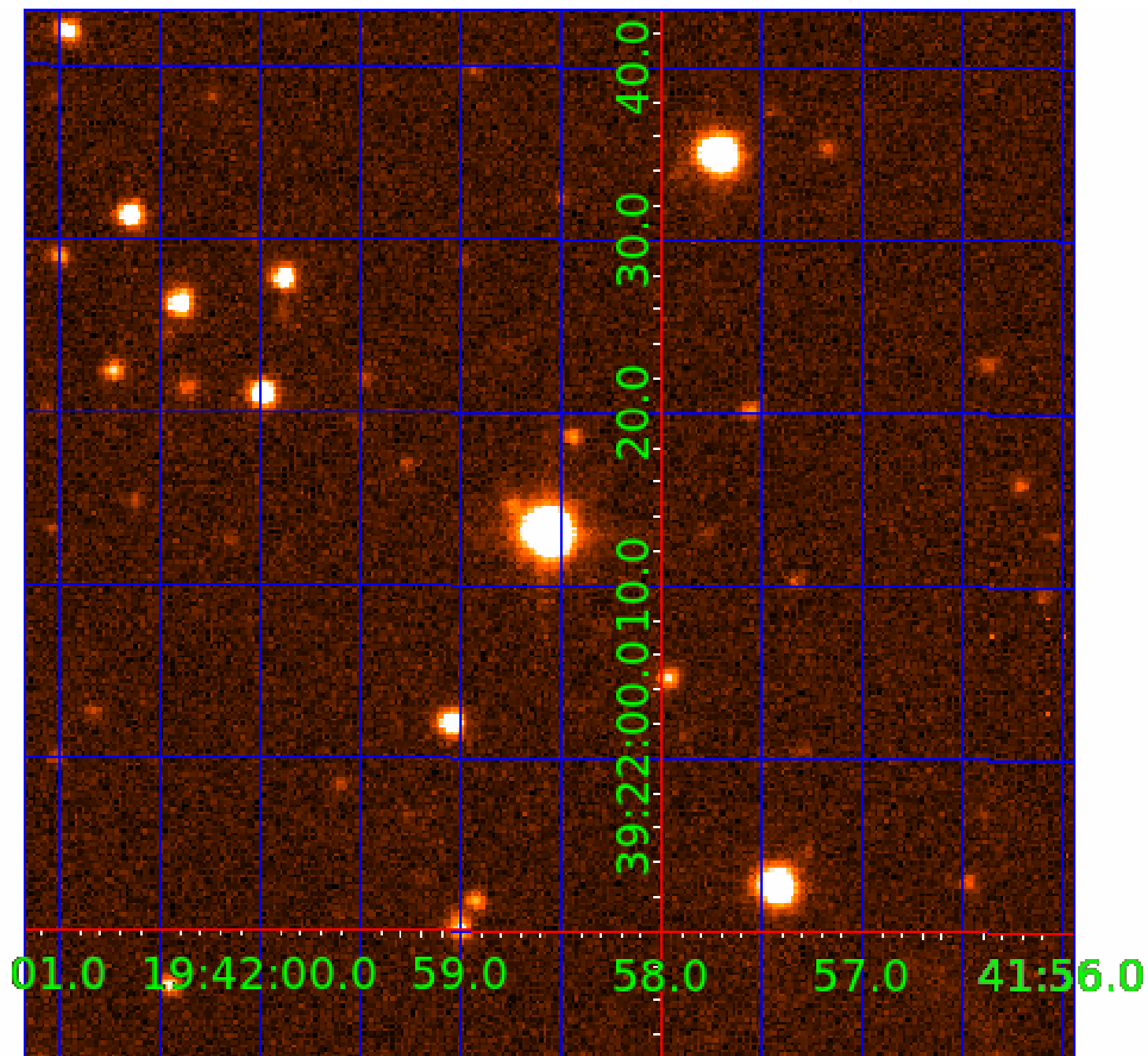


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 004279066

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})
004279066-01	OBS	No	12.651782	140.329678	168.2	35.400	8.6	12.6	1.93	6523	4.99	411.39
004279066-02	OBS	No	518.635632	362.365520	601.3	20.564	11.1	8.9	1.93	6523	6.12	2.91
004279066-03	OBS	No	12.652400	134.243317	83.9	21.588	7.5	9.0	1.93	6523	2.04	411.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004279066-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV
004279066-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—INCONSISTENT_TRANS—CENT_FEW_DIFFS
004279066-03	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—SAME_NTL_PERIOD

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

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

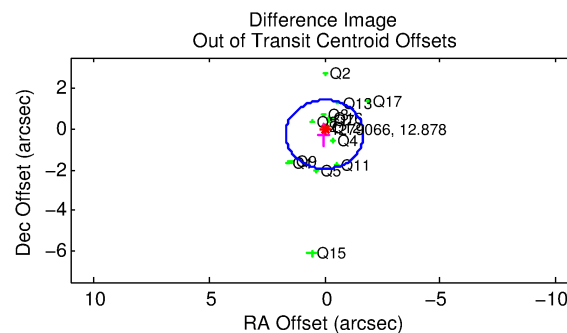
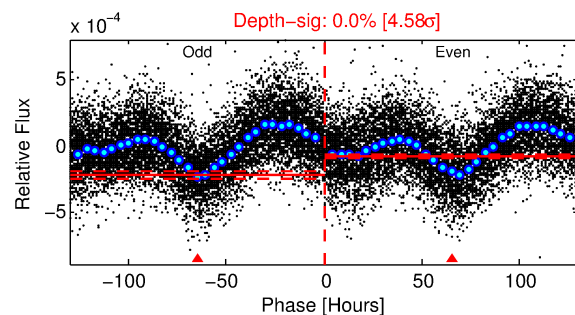
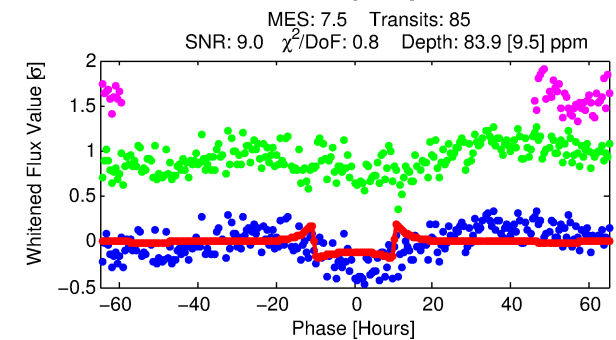
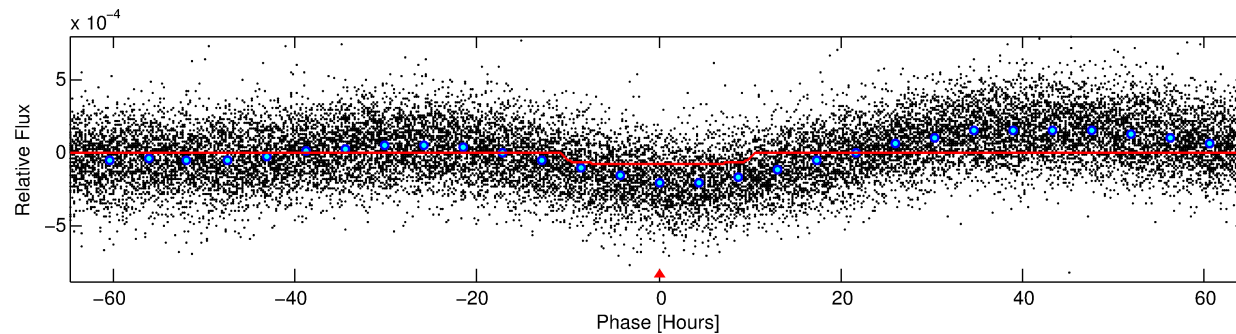
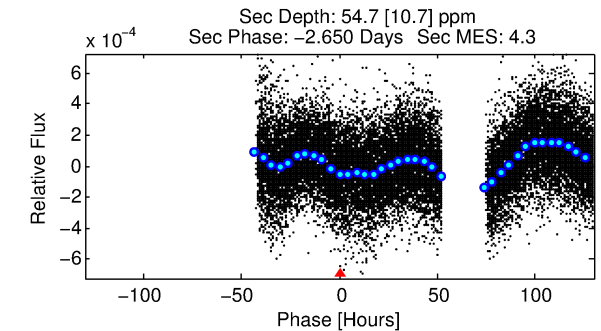
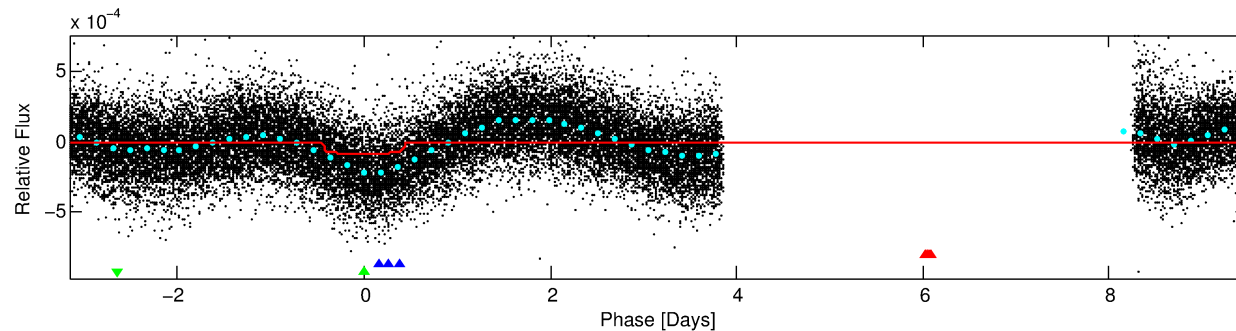
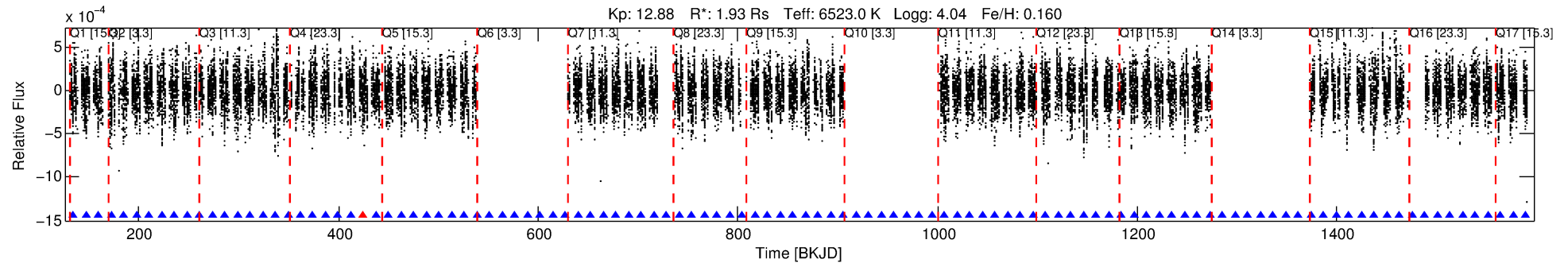
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004279066-03

No Significant Match Found

DV One-Page Summary

KIC: 4279066 Candidate: 3 of 3 Period: 12.652 d



DV Fit Results:

Period = 12.65240 [0.00018] d
Epoch = 134.2433 [0.0113] BKJD
Rp/R* = 0.0097 [0.0008]
a/R* = 2.38 [0.51]
b = 0.88 [0.07]
Seff = 411.36 [120.77]
Teff = 1148 [84] K
Rp = 2.04 [0.43] Re
a = 0.1209 [0.0223] AU
Ag = 106.12 [40.69] [2.58σ]
Teffp = 5699 [364] K [12.17σ]

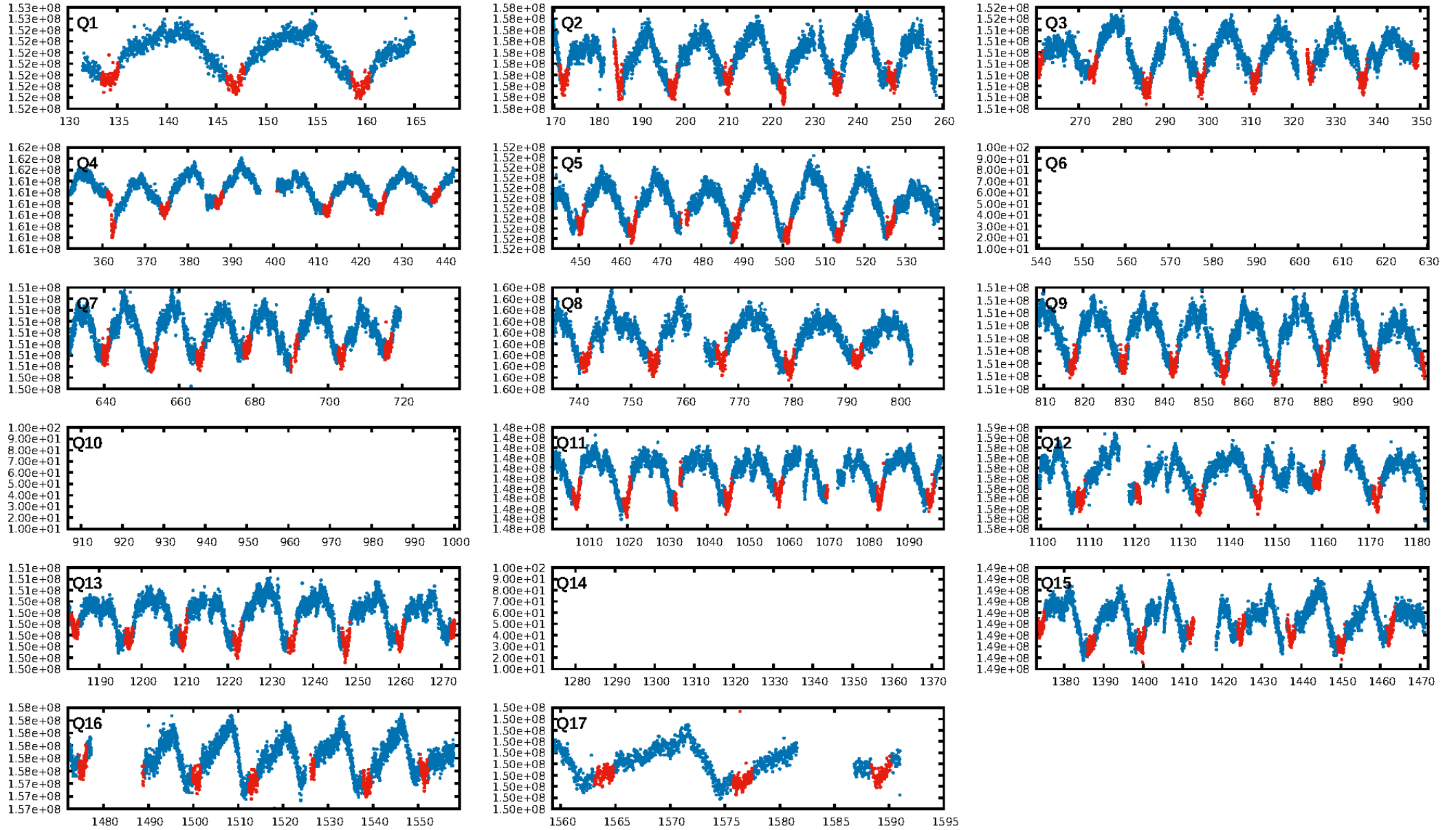
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [407.30σ]
ModelChiSquare2-sig: 99.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.71e-14
RollingBand-fgt: 0.99 [78/79]
GhostDiagnostic-chr: 0.8043
Centroid-sig: 25.8%
Centroid-so: 0.447 arcsec [0.77σ]
OotOffset-rm: 0.271 arcsec [0.48σ]
KicOffset-rm: 0.133 arcsec [0.23σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 0.86 [12/14]
DiffImageOverlap-fno: 1.00 [14/14]

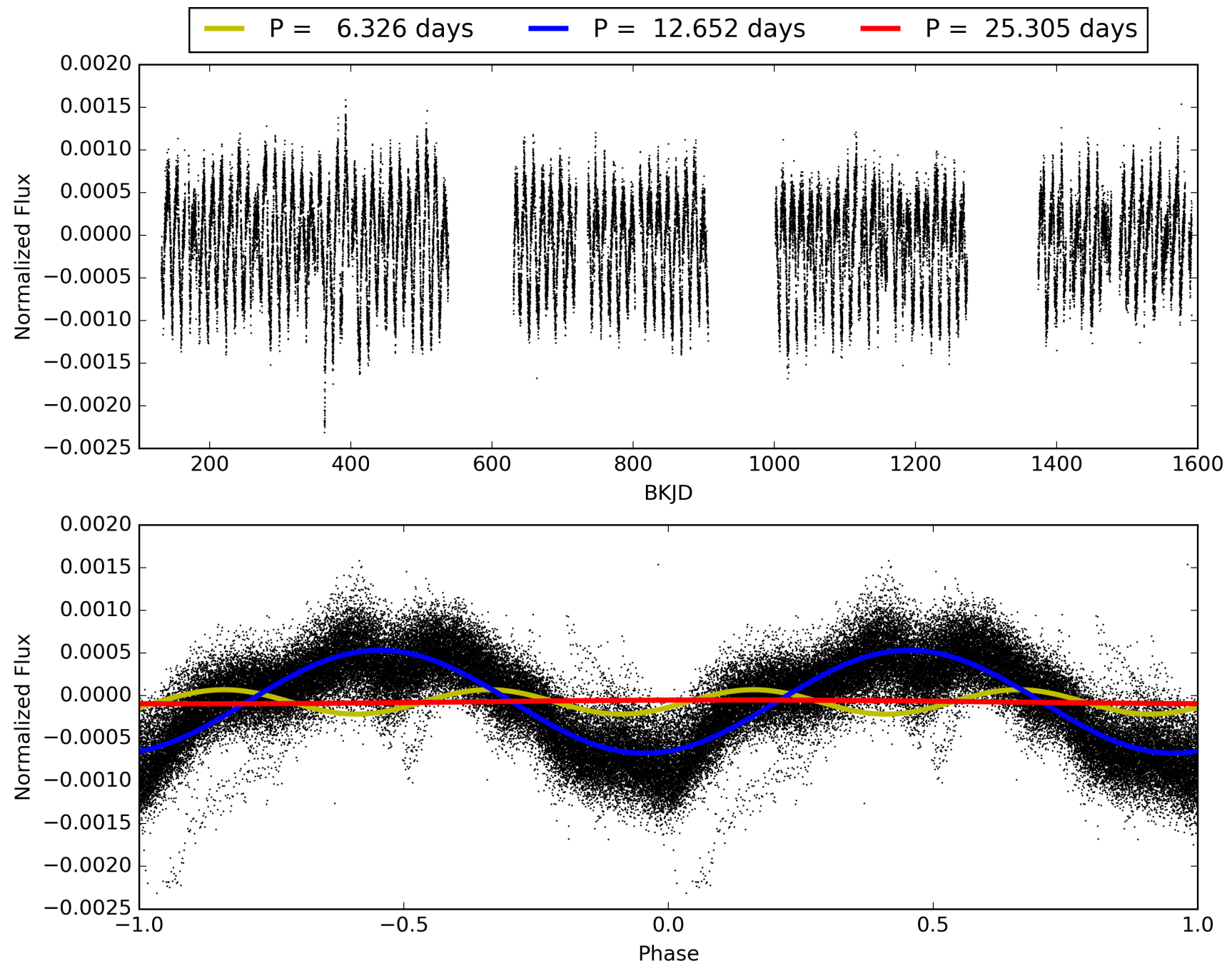
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 08:25:52 Z

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

TCE 004279066-03, PDC Light Curves

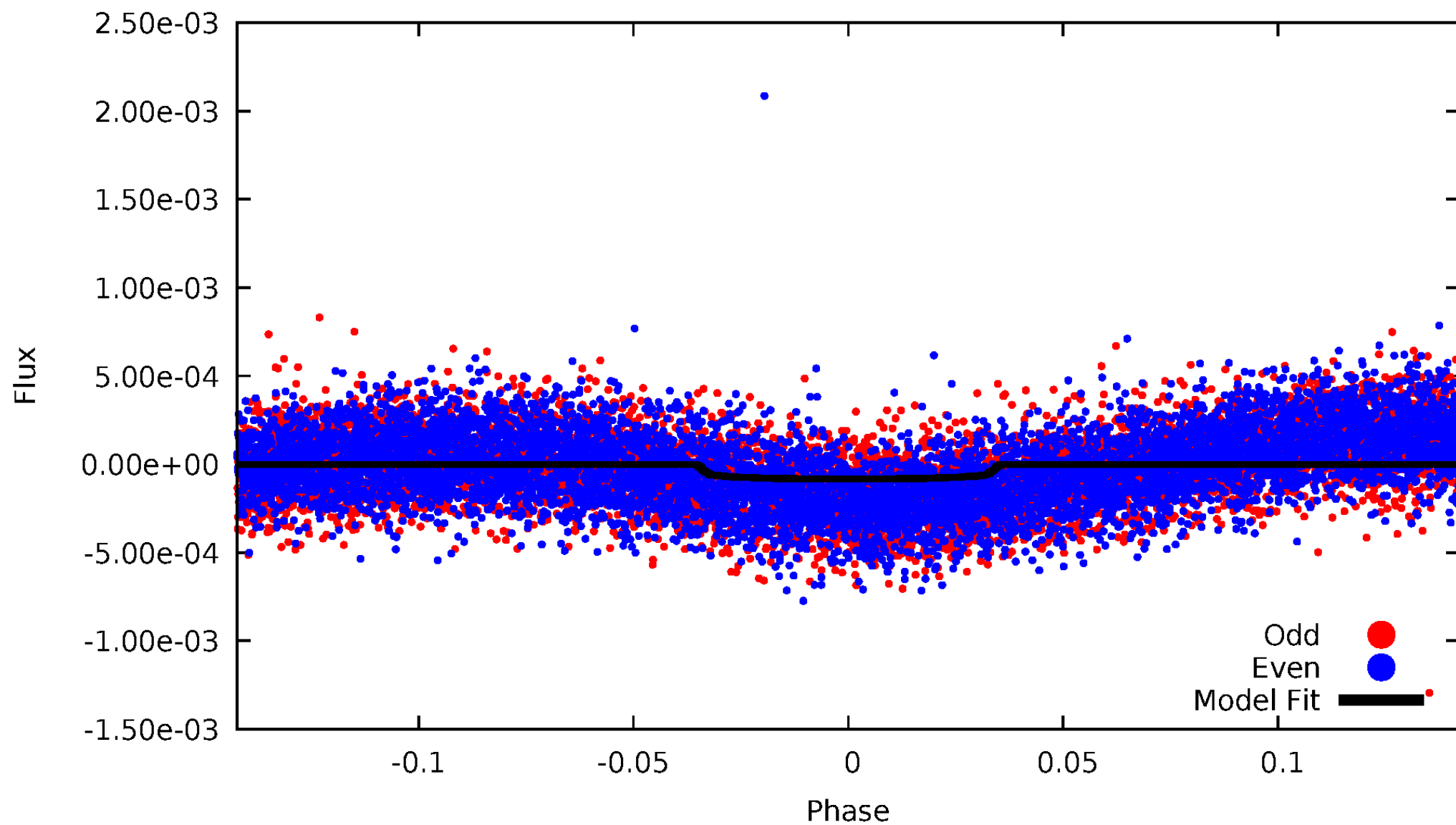


TCE 004279066-03



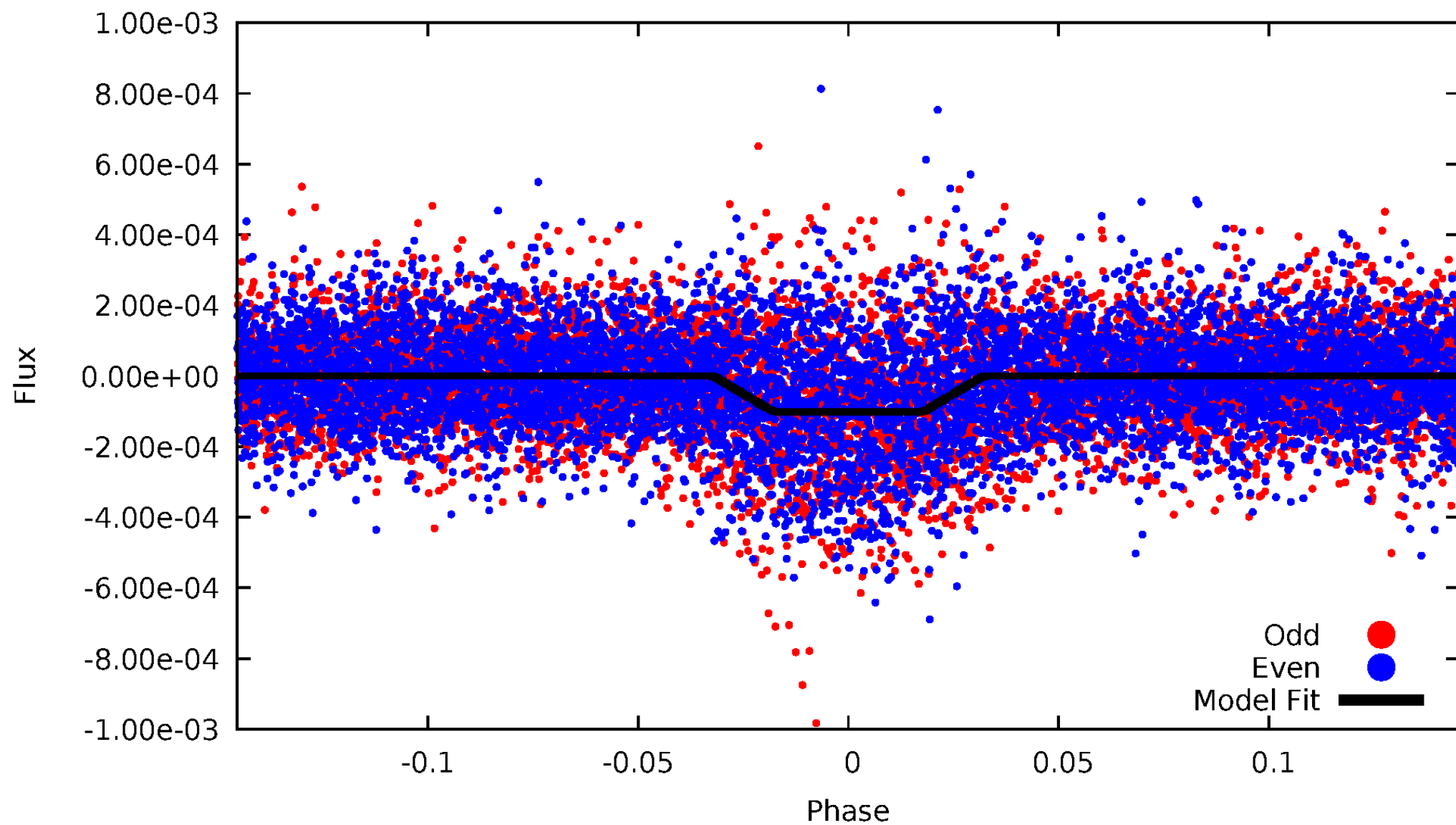
DV Odd/Even

TCE 004279066-03

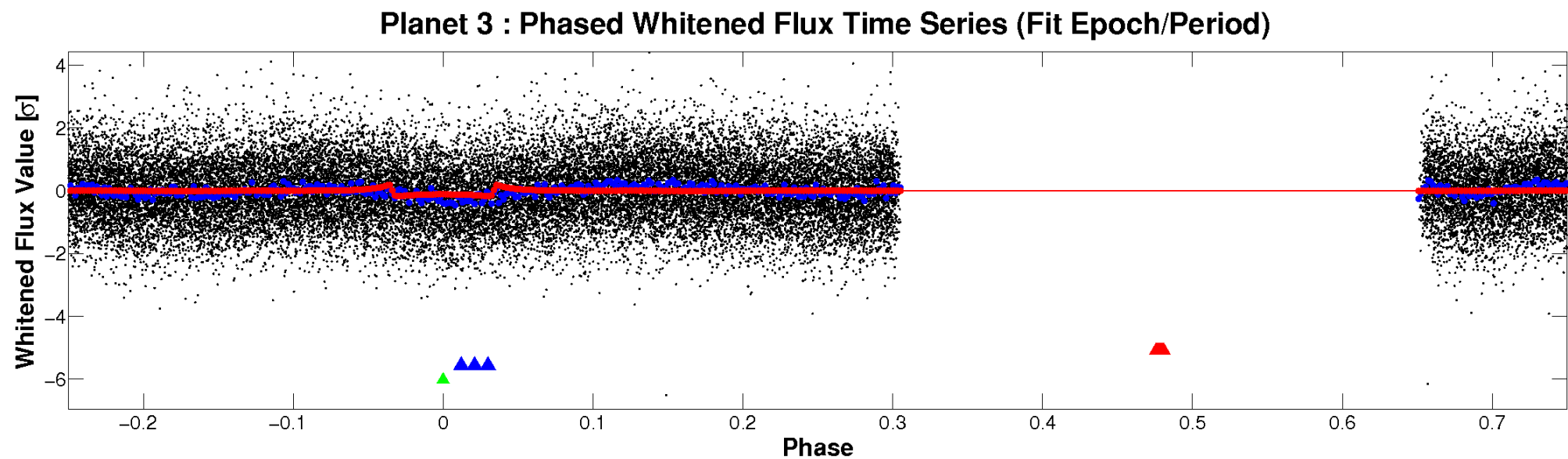
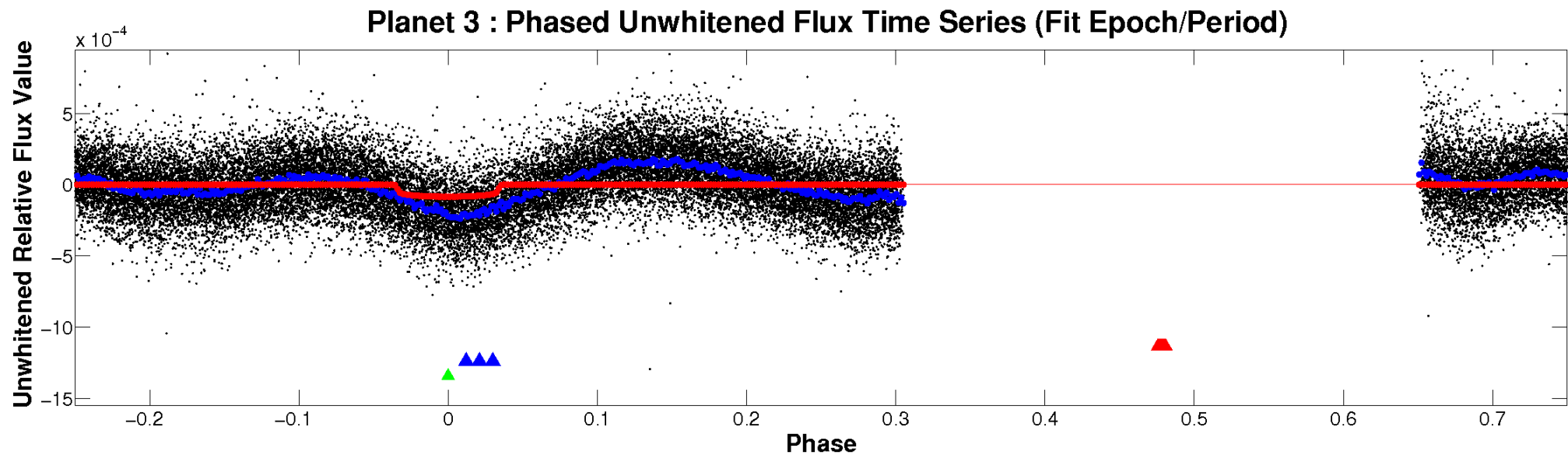


ALT Odd/Even

TCE 004279066-03

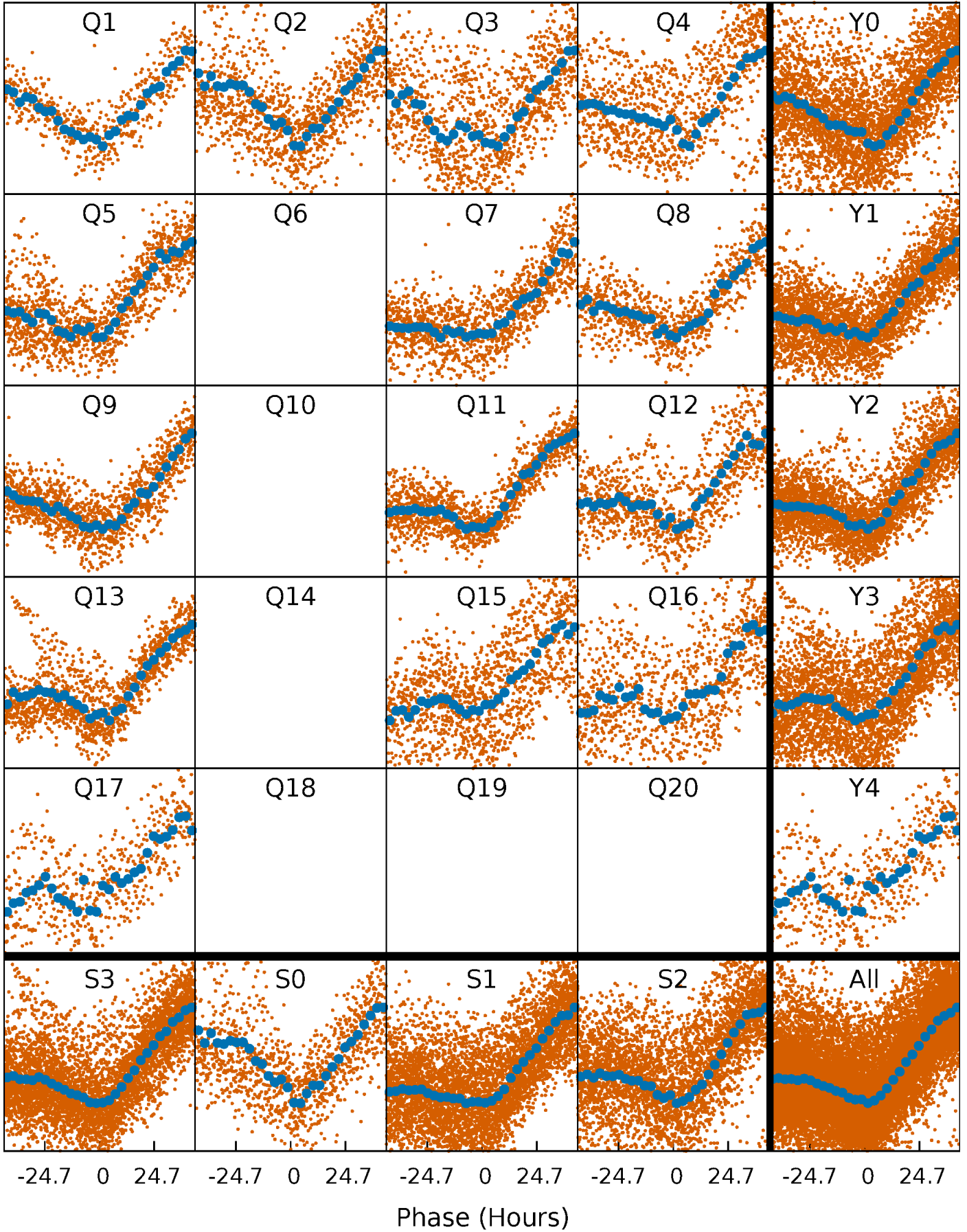


Non-Whitened Vs. Whitened Light Curve



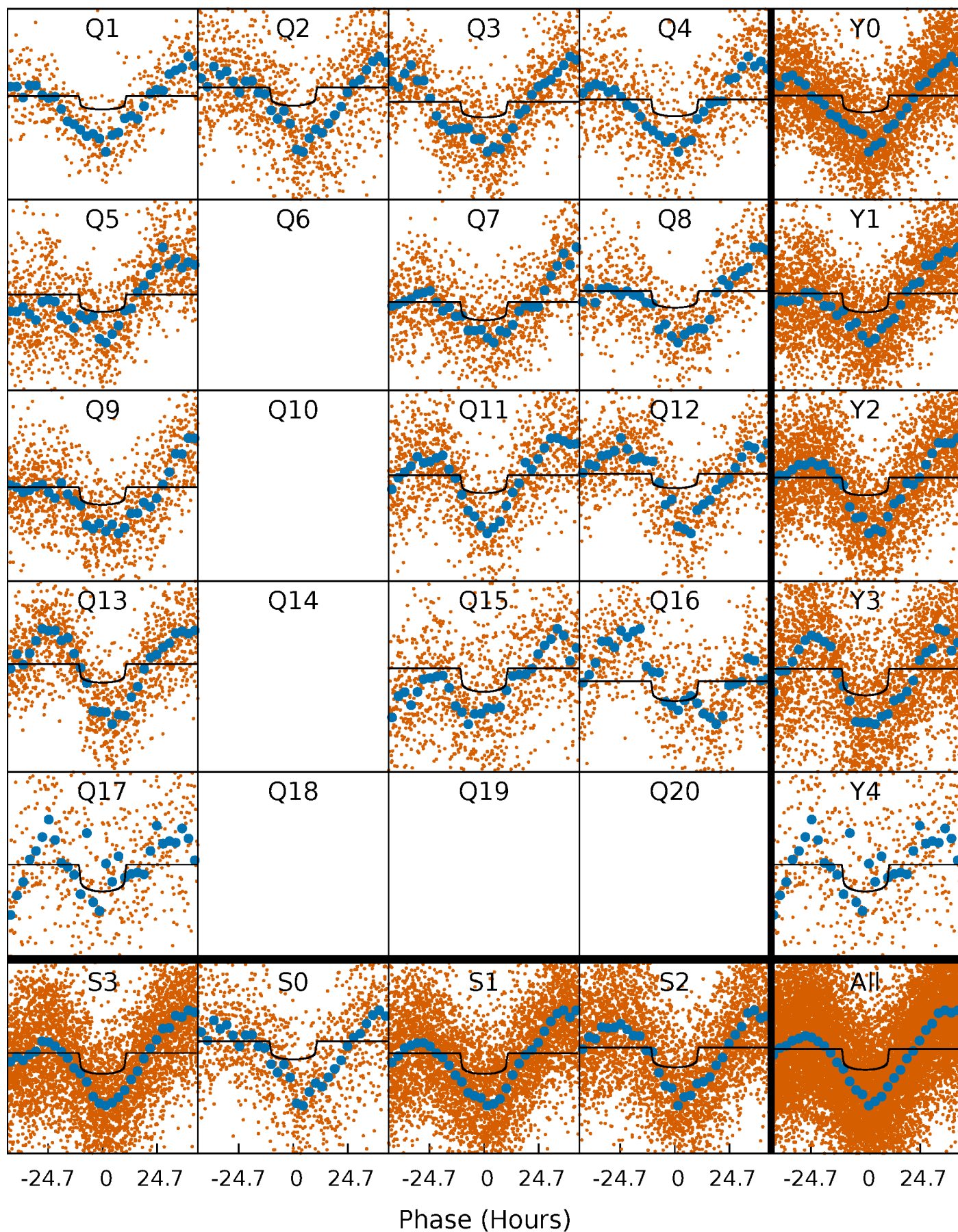
PDC Quarter-Phased Transit Curves

TCE 004279066-03 P= 12.652400 Days $T_0=134.243317$ (BKJD)



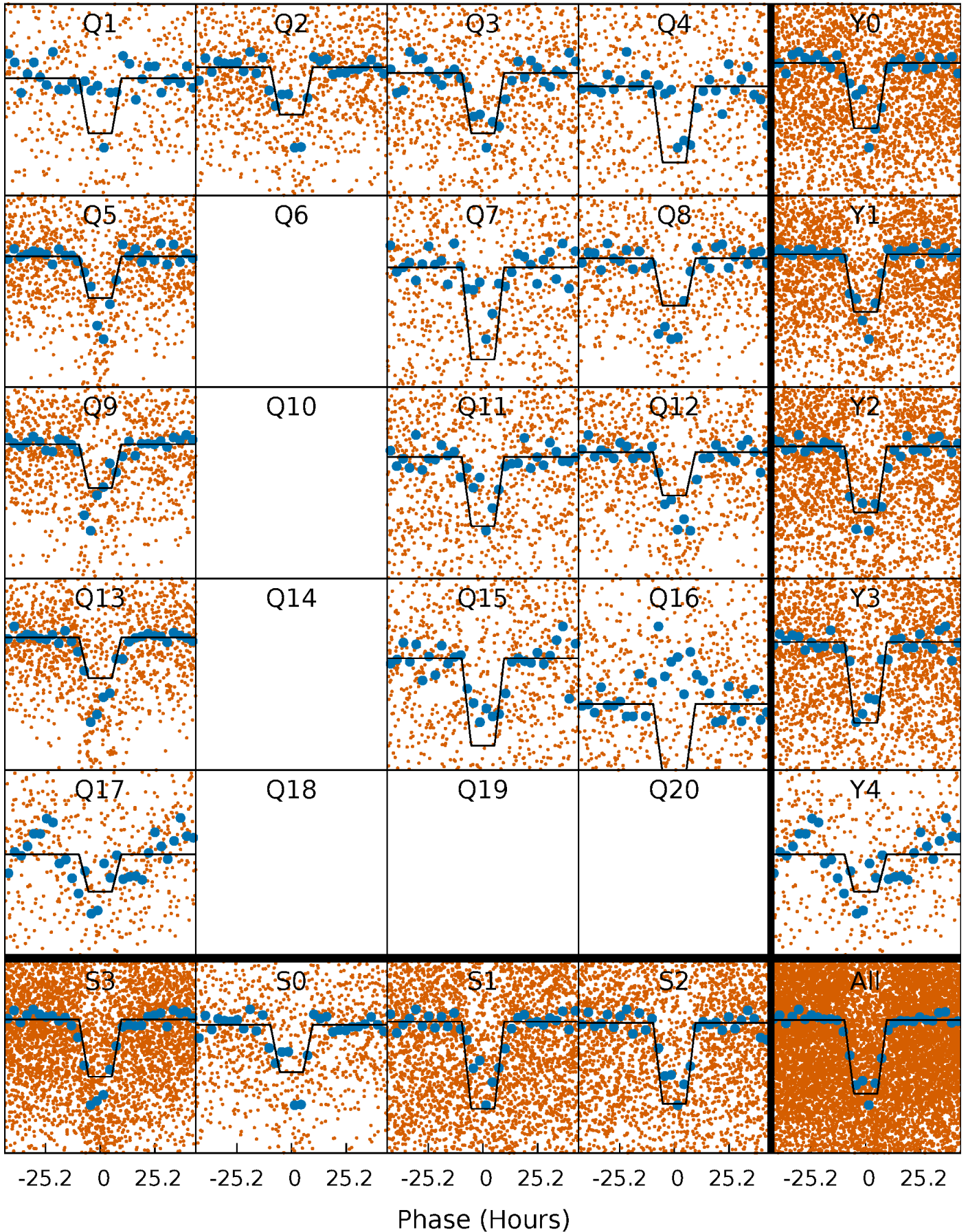
DV Quarter-Phased Transit Curves

TCE 004279066-03 P= 12.652400 Days $T_0=134.243317$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

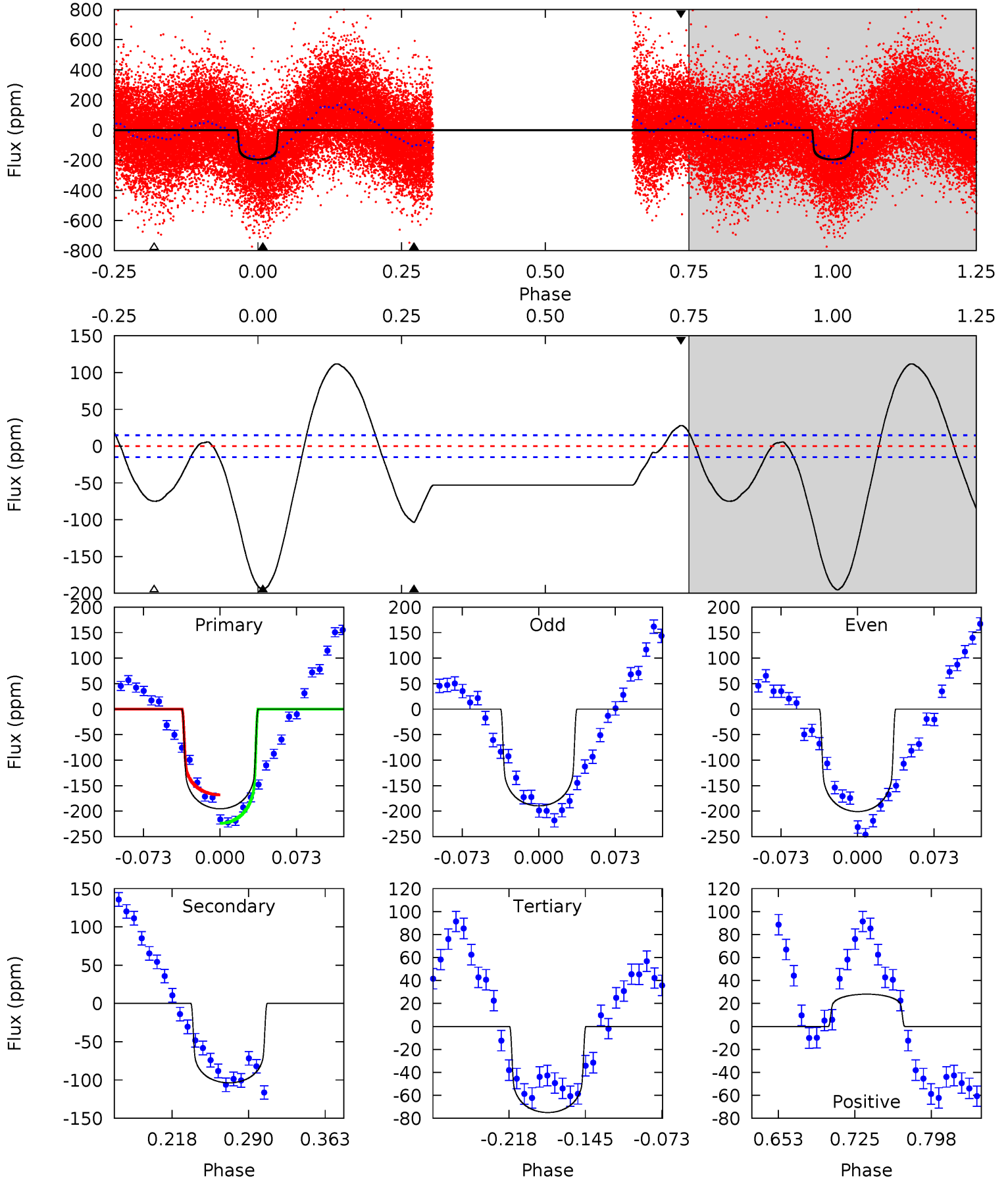
TCE 004279066-03 P= 12.652341 Days $T_0=134.230739$ (BKJD)



DV Model-Shift Uniqueness Test

004279066-03, P = 12.652400 Days, E = 121.590917 Days

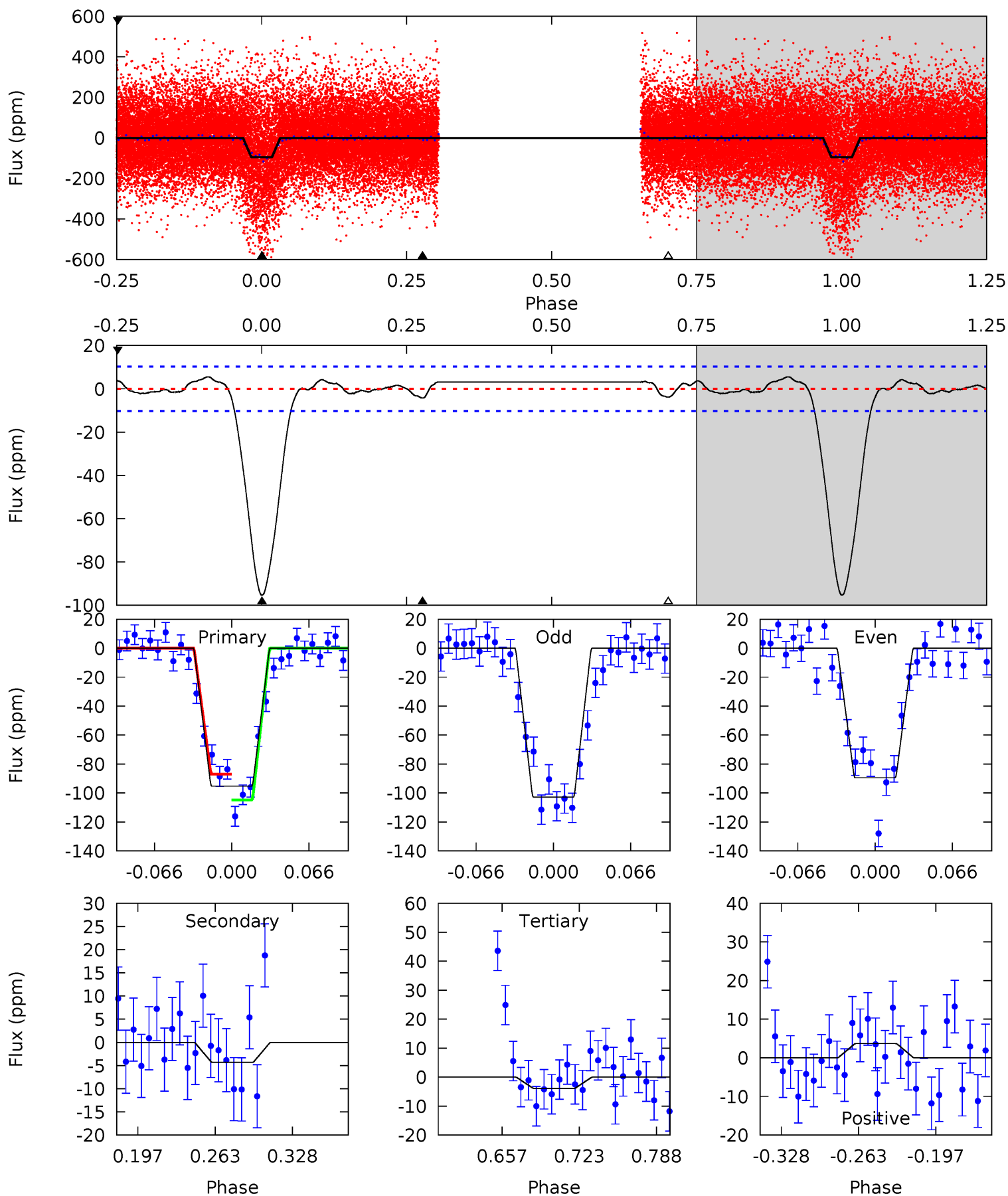
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
60.7	32.2	23.3	8.74	4.63	1.80	17.2	37.4	52.0	8.92	23.5	1.74	0.94	0.36	8.75



Alt Model-Shift Uniqueness Test

004279066-03, P = 12.652341 Days, E = 121.578398 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
43.1	1.95	1.76	1.67	4.65	1.84	1.06	41.3	41.4	0.20	0.29	3.02	1.16	0.06	4.04



Stellar Parameters For KIC 004279066

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6523^{+78}_{-78}	$4.037^{+0.168}_{-0.112}$	$0.160^{+0.150}_{-0.150}$	$1.926^{+0.343}_{-0.381}$	$1.471^{+0.128}_{-0.142}$	$0.290^{+0.261}_{-0.102}$
	+1%/-1%	+4%/-3%	+94%/-94%	+18%/-20%	+9%/-10%	+90%/-35%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 004279066-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-104 ± 3	$2.03^{+0.29}_{-0.27}$	1599^{+83}_{-86}	6684^{+339}_{-280}	205^{+67}_{-49}
Alt.	-4 ± 2	$2.09^{+0.28}_{-0.27}$	1598^{+73}_{-80}	3435^{+261}_{-341}	$8.083^{+4.749}_{-4.216}$

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

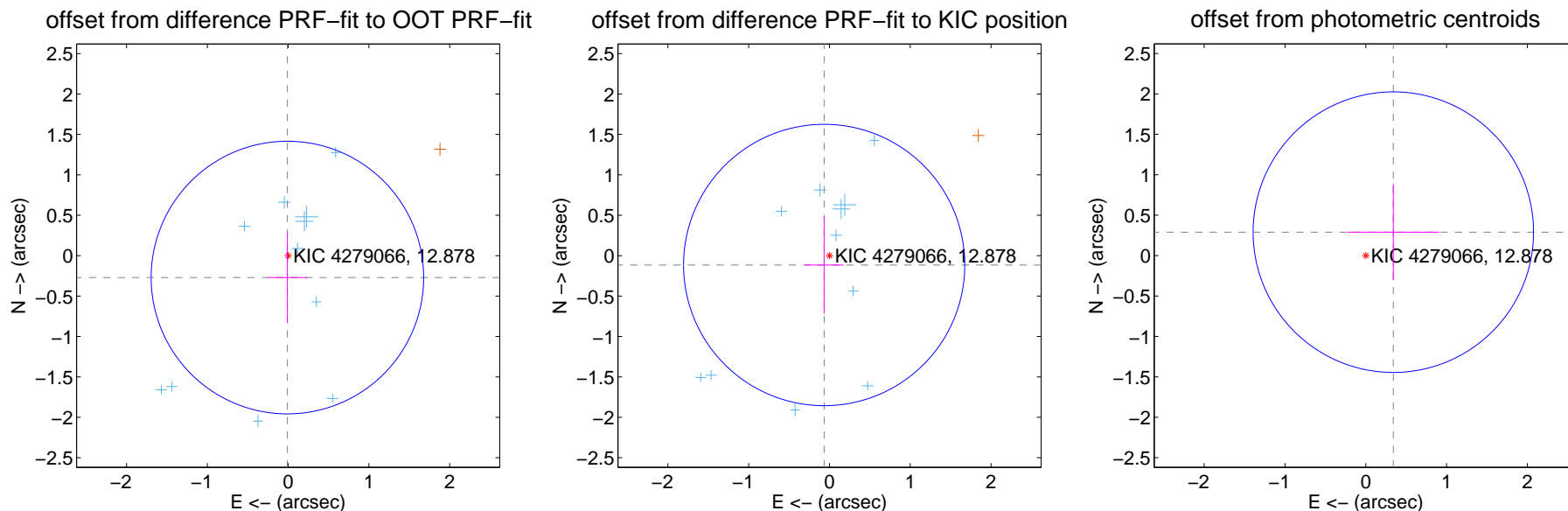
DV Centroid Data

Supplemental centroid analysis for 004279066-03. Kepler magnitude: 12.88. Transit SNR 8.95

There are 12 quarters with good PRF difference image offsets

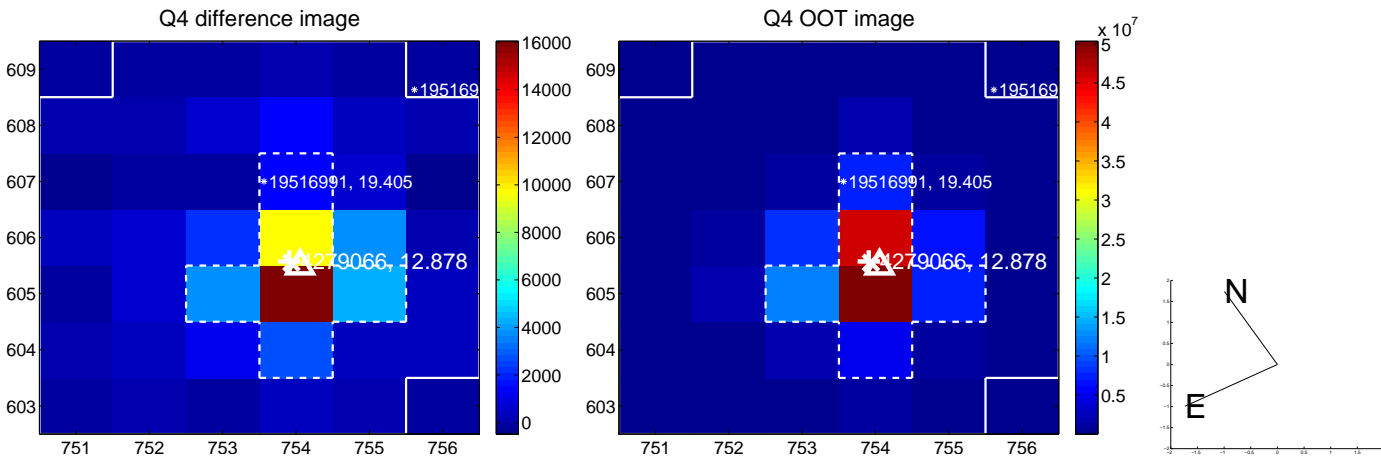
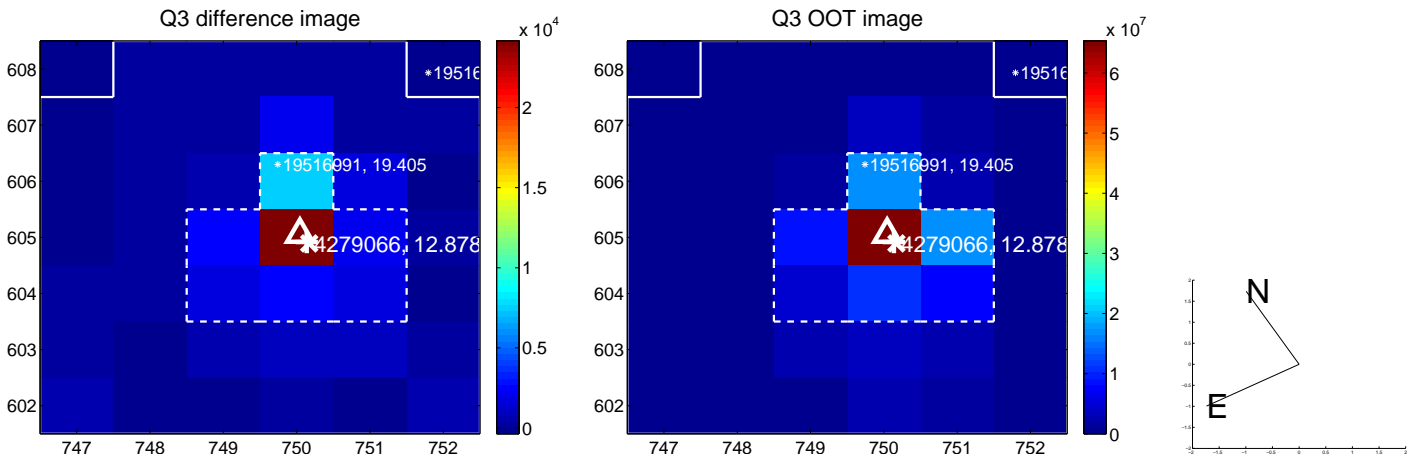
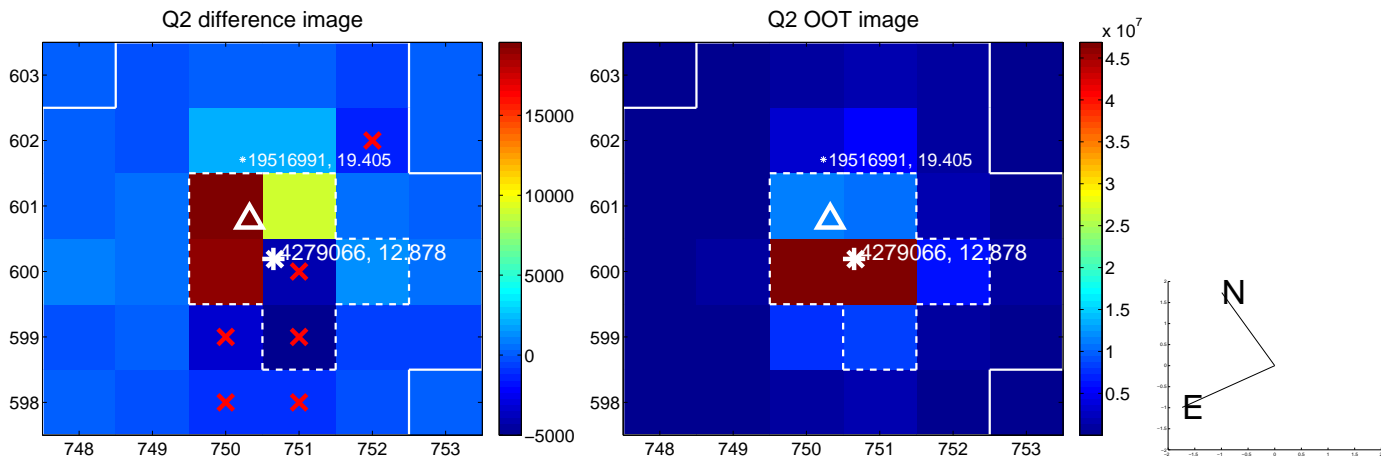
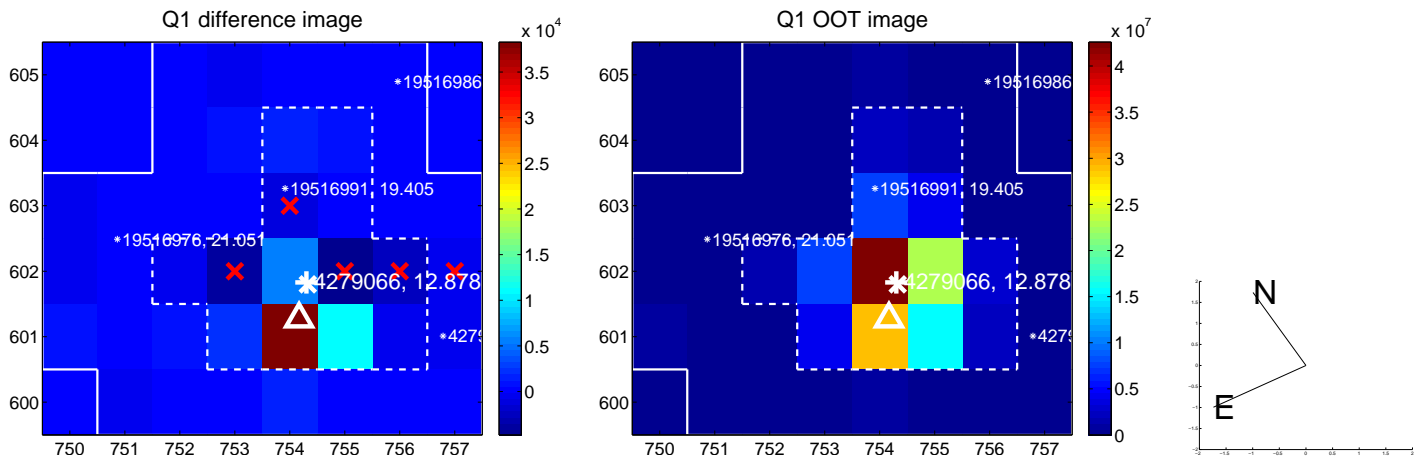
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.271 ± 0.562	0.48	0.009 ± 0.241	-0.271 ± 0.559
PRF-fit source offset from KIC position	0.133 ± 0.580	0.23	0.066 ± 0.242	-0.116 ± 0.602
photometric centroid source offset	0.45 ± 0.58	0.77	-0.34 ± 0.57	0.29 ± 0.59

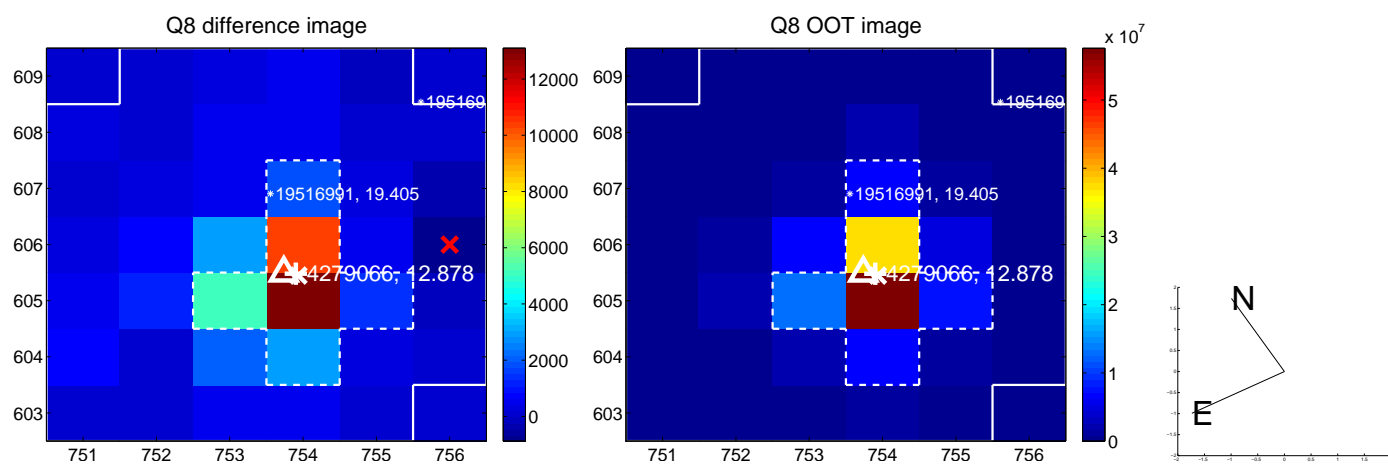
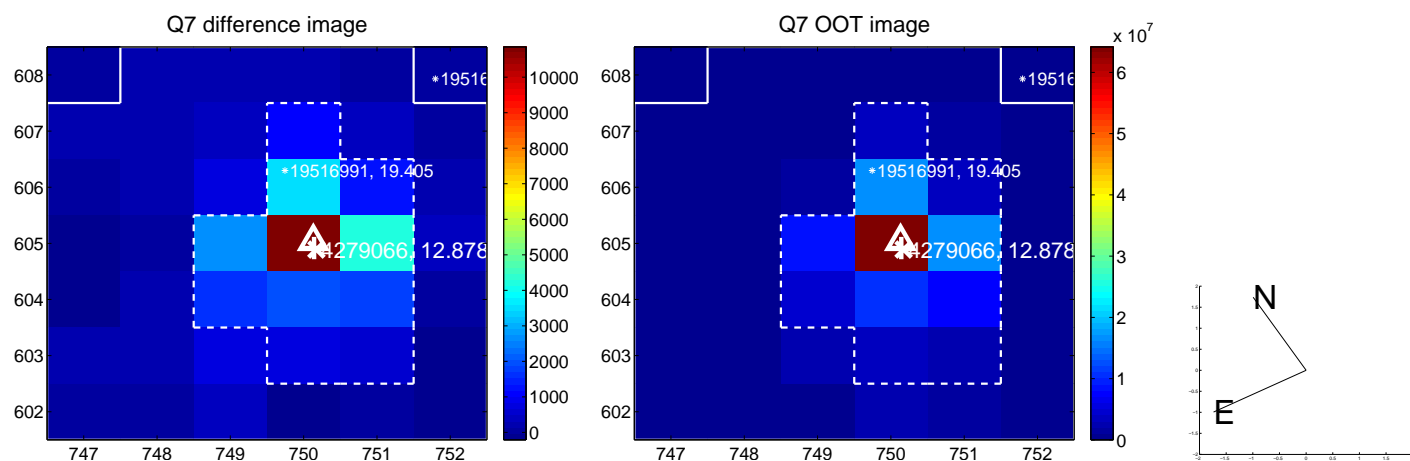
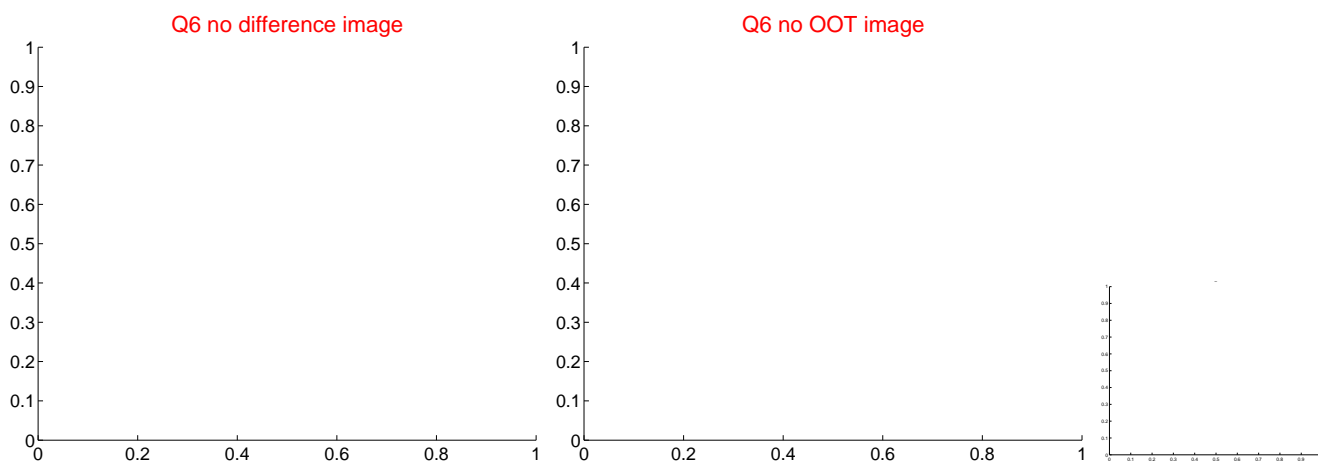
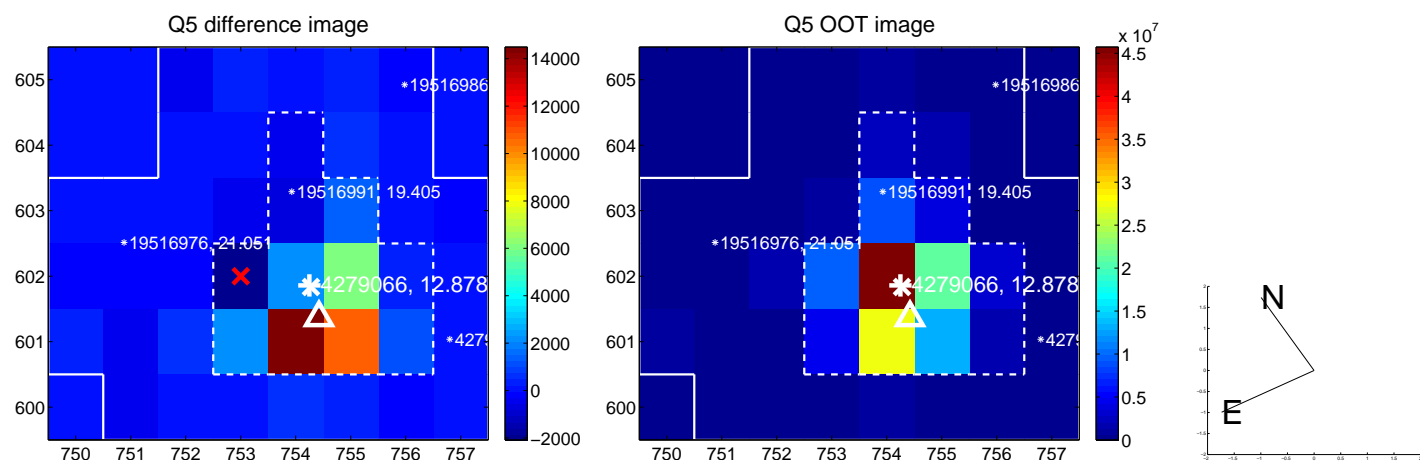


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

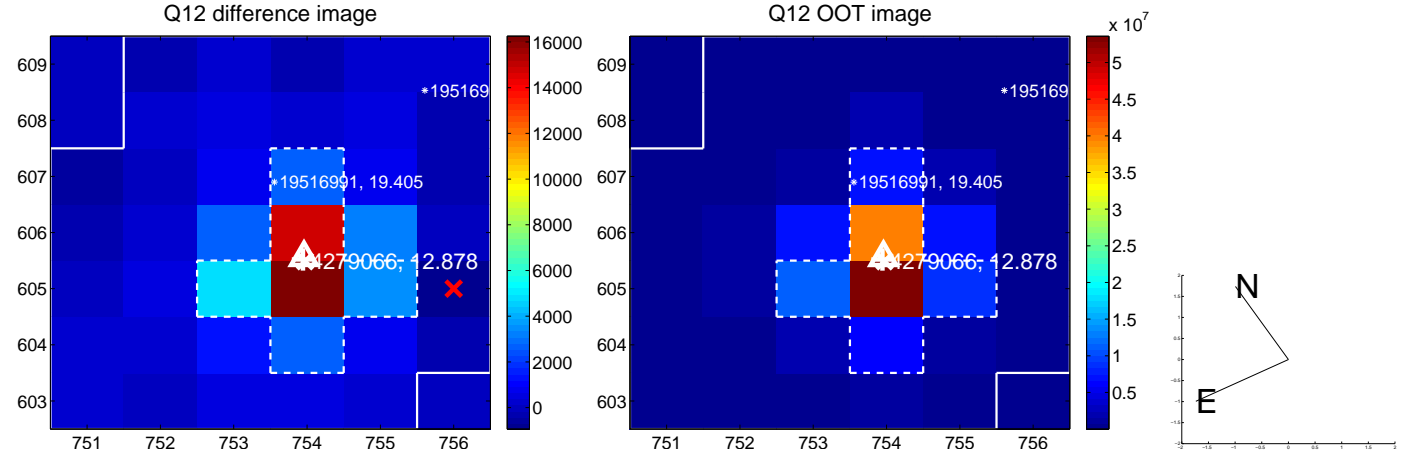
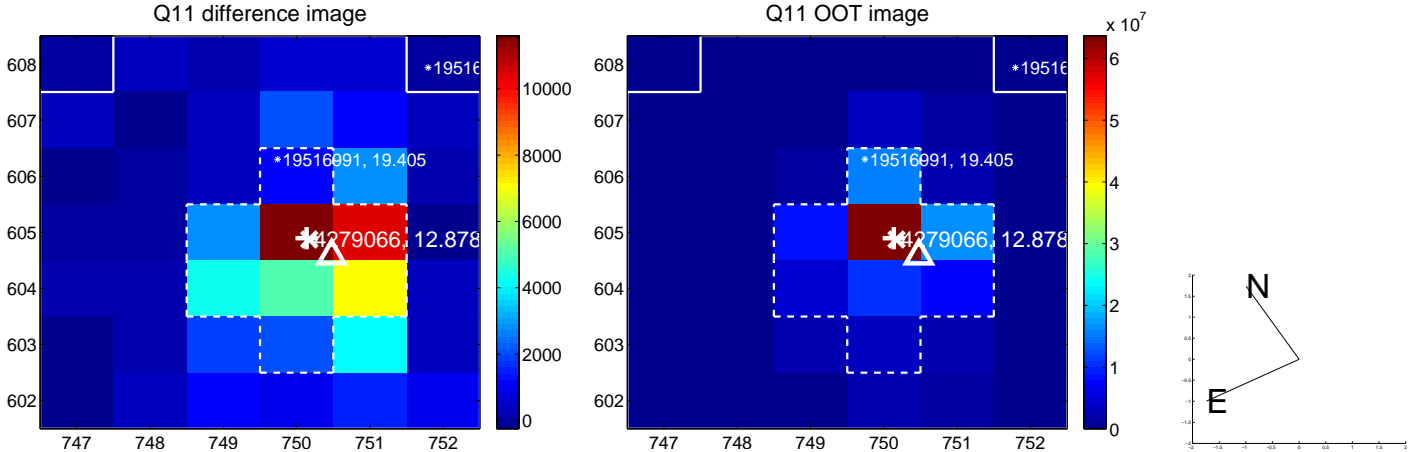
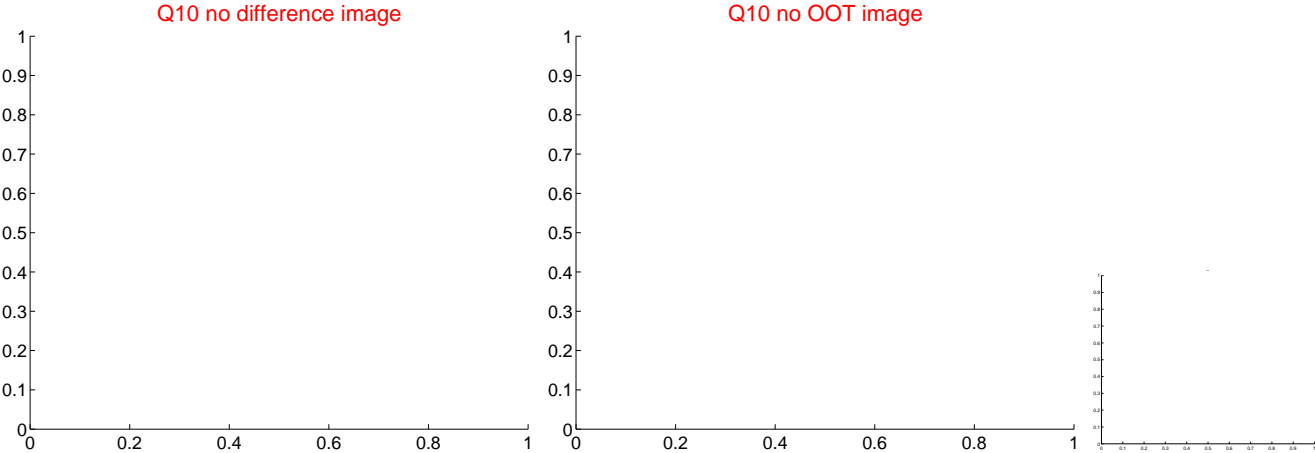
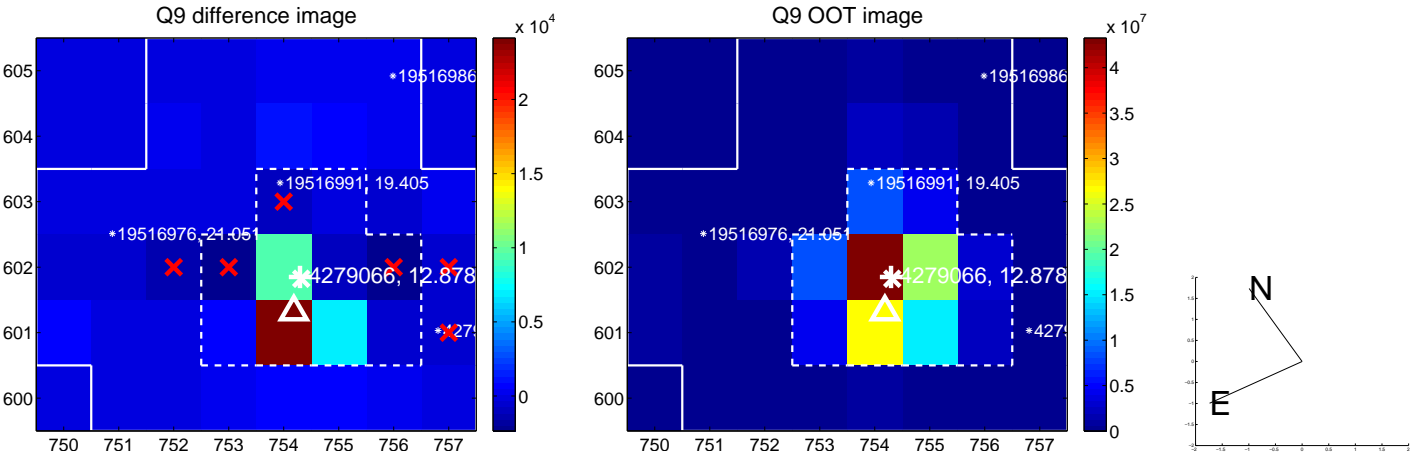
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



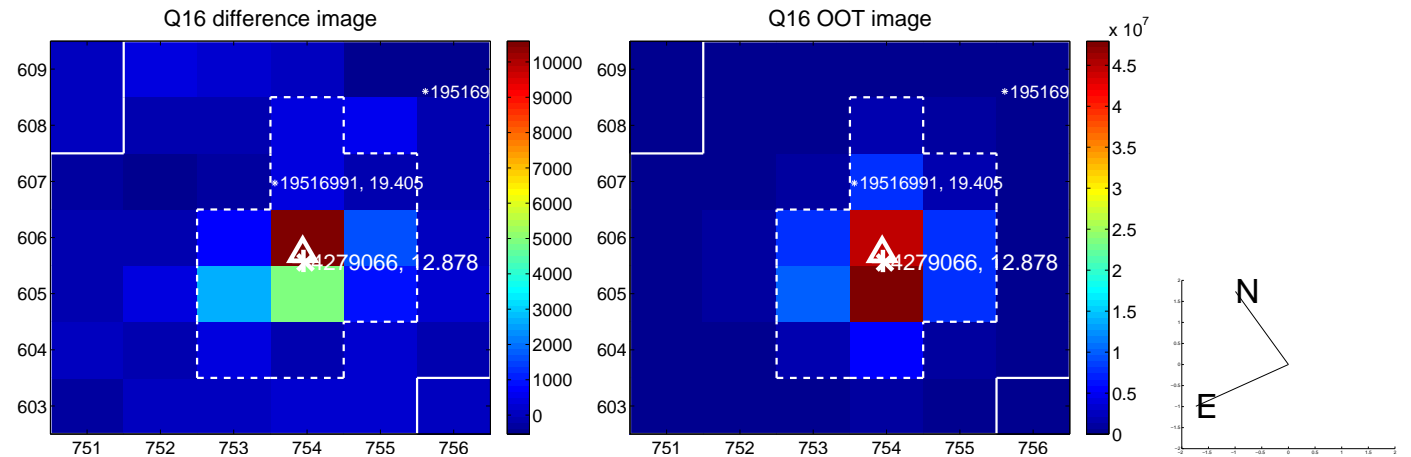
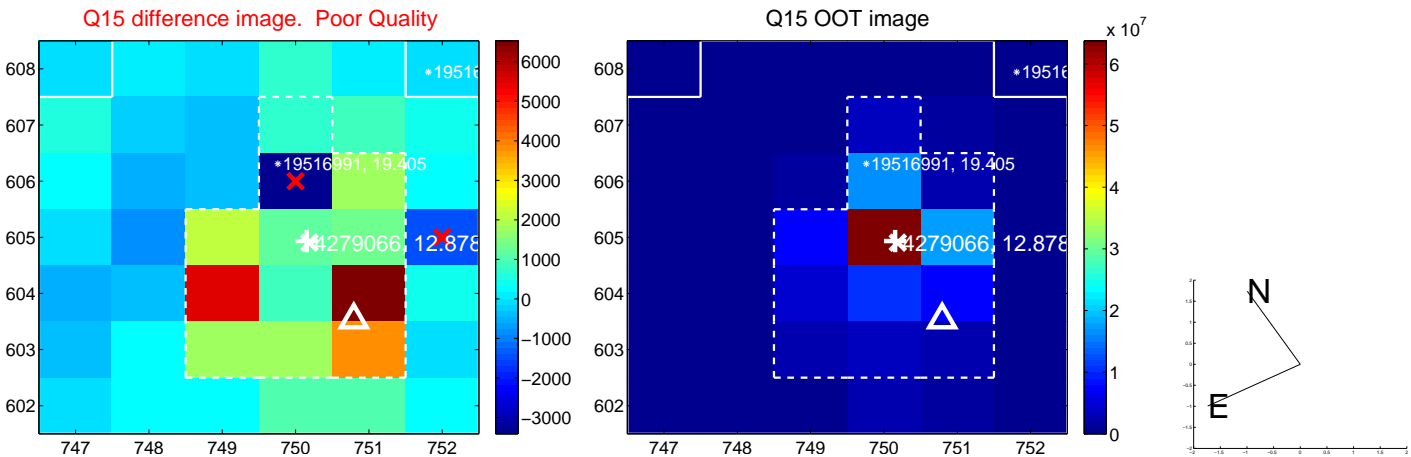
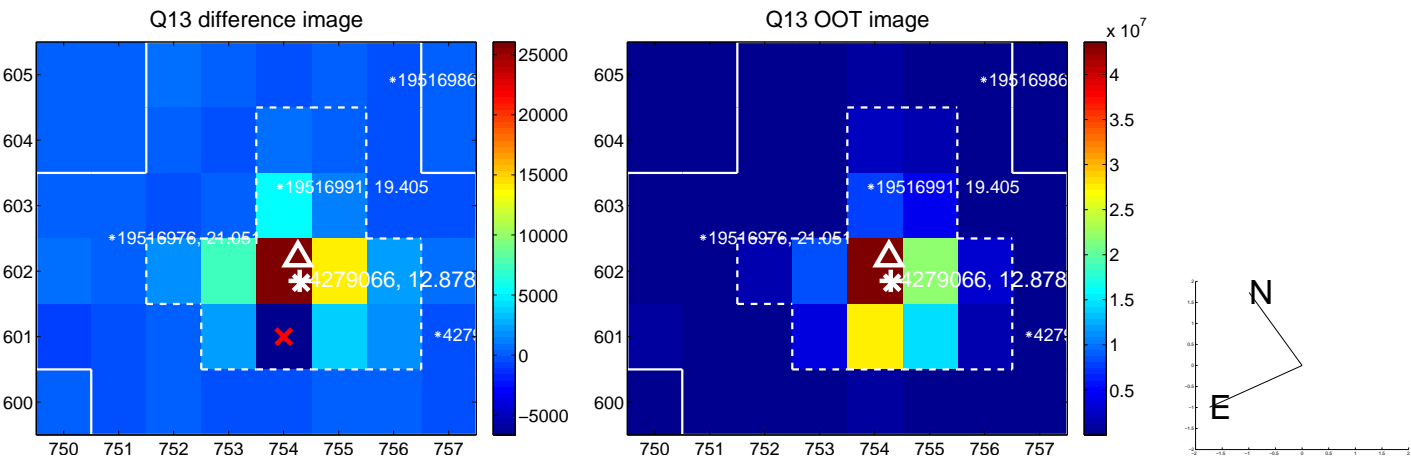
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



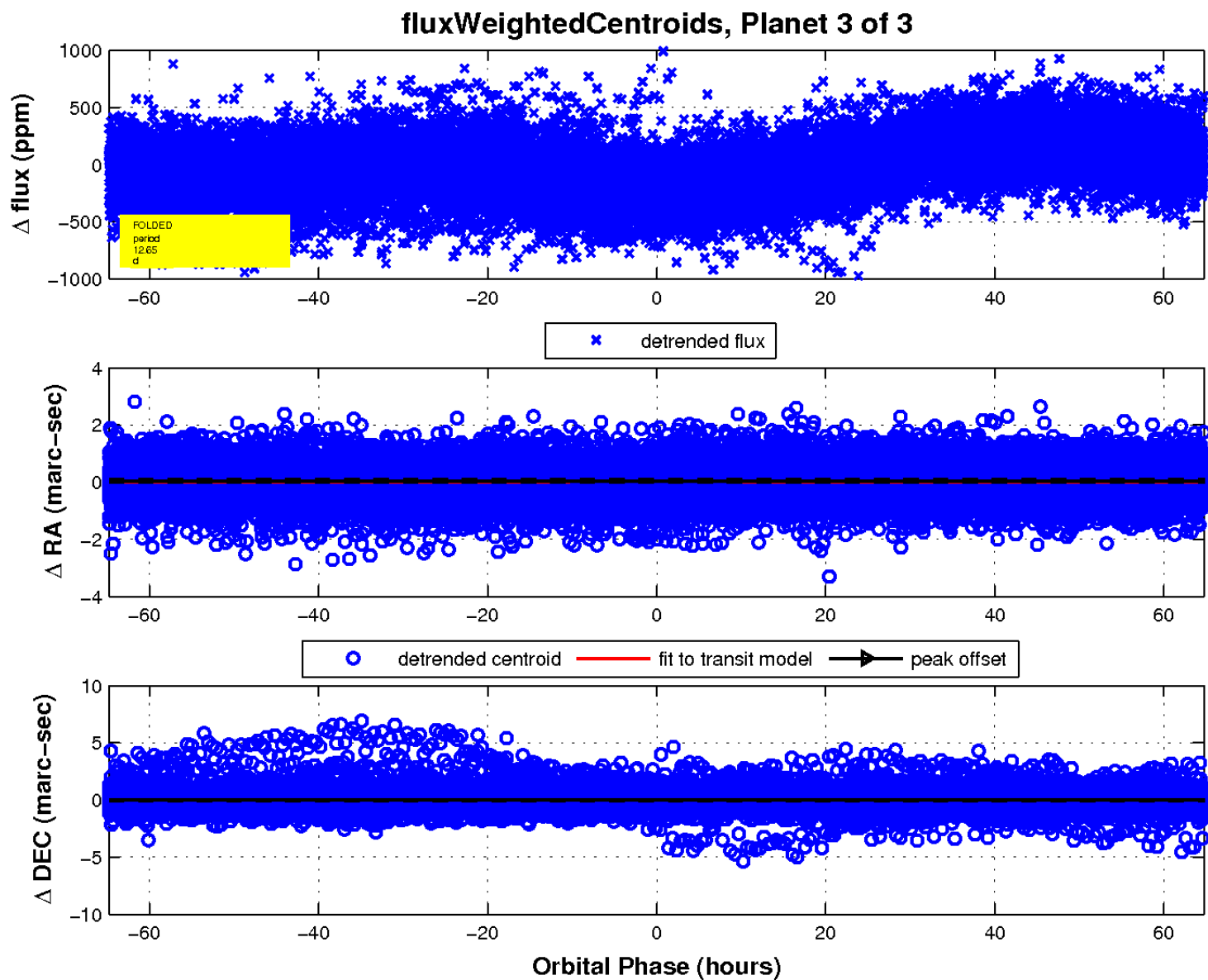
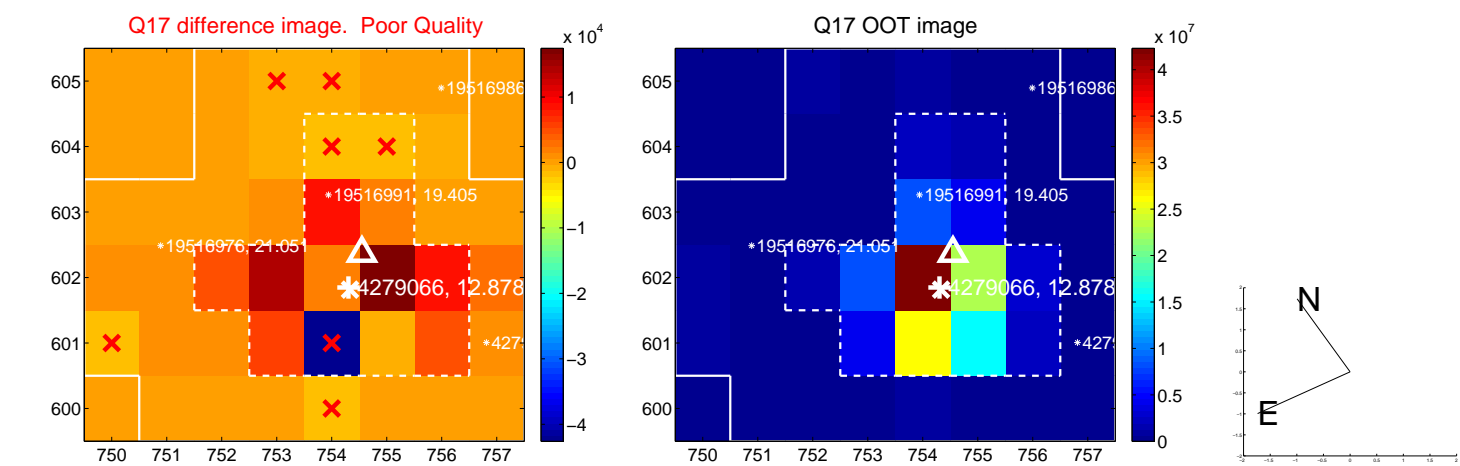
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

